

04 - NAP - 29, PM 37.03

20.10.201.111

EA 3G640K

E-FIS 0412000134

September 2011

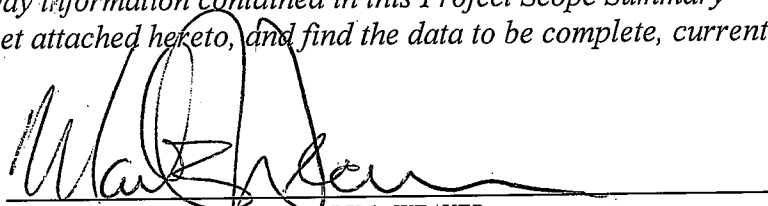
## PROJECT SCOPE SUMMARY REPORT (STRUCTURE REHABILITATION)

To

### Request Programming in the 2012 SHOPP

On Route 29 in Napa County in Calistoga at Napa River Bridge (#21-0018)

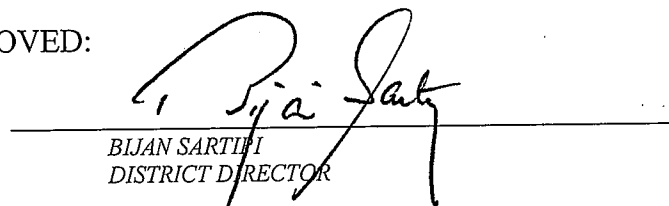
*I have reviewed the right of way information contained in this Project Scope Summary Report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:*

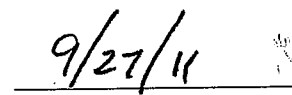
  
MARK L. WEAVER  
DEPUTY DISTRICT DIRECTOR - RIGHT OF WAY AND LAND SURVEYS

APPROVAL RECOMMENDED:

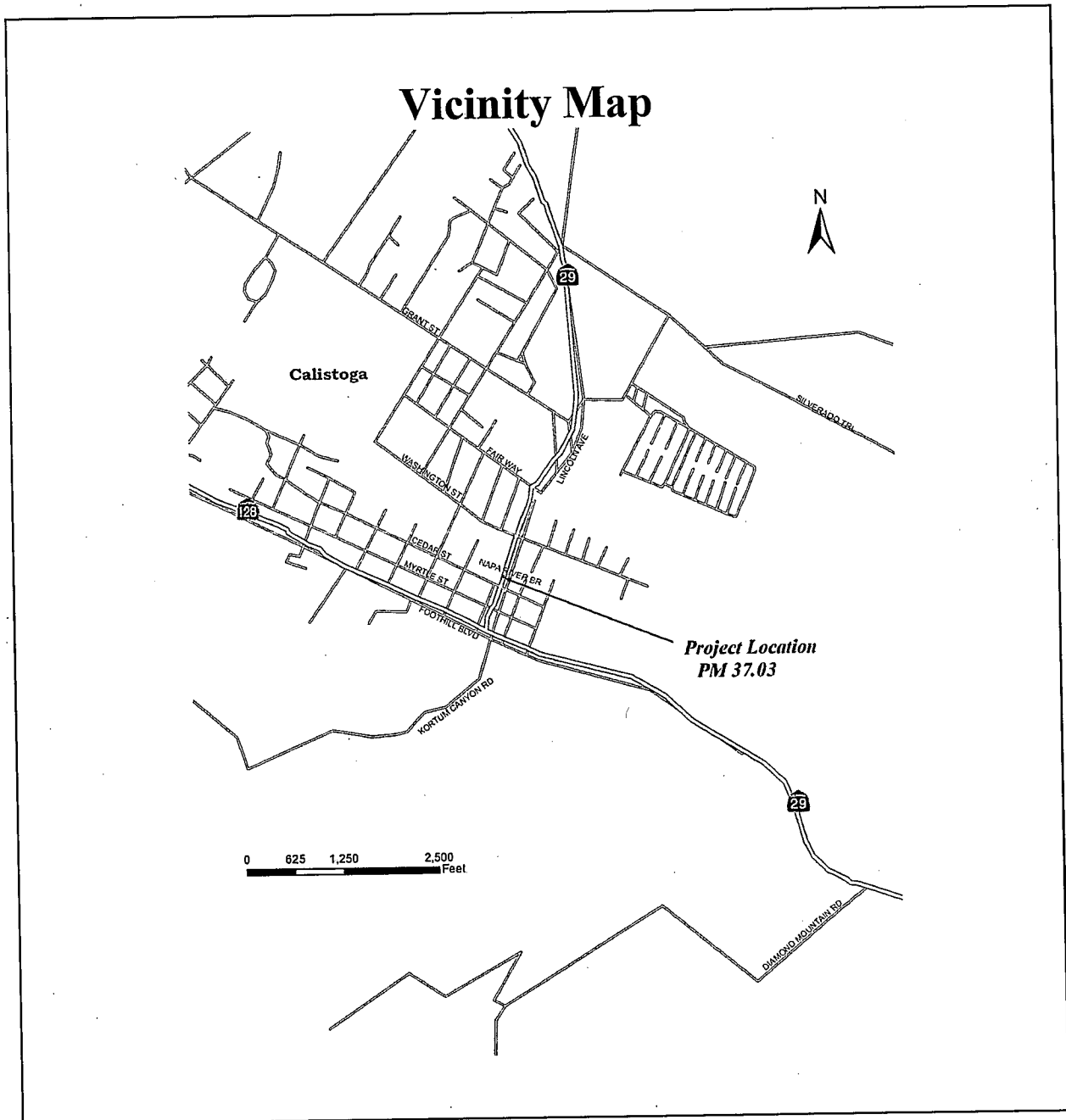
  
KELLY HIRSCHBERG  
PROJECT MANAGER

APPROVED:

  
BIJAN SARTIFI  
DISTRICT DIRECTOR

  
DATE

04 - NAP - 29, PM 37.03  
EA 3G640K  
September 2011



On Route 29 in Napa County in Calistoga at Napa River Bridge (#21-0018)

04 - NAP - 29, PM 37.03.

This Project Scope Summary Report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

  
STEWART LEE - REGISTERED CIVIL ENGINEER

9/16/11  
DATE



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## 1. INTRODUCTION AND BACKGROUND

This project proposes to replace Napa River Bridge # 21-0018, on State Route (SR) 29, in Napa County. This two span bridge was originally built in 1919 as a reinforced concrete (RC) "T" Beams (6 girders) structure on RC pier and masonry abutments. In 1952, it was widened on both sides with "T" Beams (3 girders on NB, 5 girders on SB) on RC abutments and pier. Entire structure is on spread footings. It has sidewalks in both directions with steel baluster rails. The current width from edge-of-deck to edge-of-deck is approximately 72'-10" and the length is approximately 62'-4".

The proposed two-span bridge is a voided reinforced concrete slab structure. The length and width would match the existing dimensions above. The width accommodates one travel lane in each direction and wide outside shoulders for bus stops in each direction. The bridge rails are proposed to be Type 80SW on both sidewalks (minimum 5'). Retaining walls (total 4) adjacent to bridge are proposed to be replaced.

See the **Cost Estimate** for specific work items included in this project.

<b>Project Limits</b> [Dist., Co., Rte., PM]	04, Napa, 29, 37.03
<b>Capital Costs:</b>	\$8,238,000
<b>Right of way Costs:</b>	\$674,000
<b>Funding Source:</b>	2012 SHOPP Program 201.111
<b>Number of Alternatives:</b>	1
<b>Recommended Alternative (for programming and scheduling):</b>	1
<b>Type of Facility (conventional, expressway, freeway):</b>	Conventional highway
<b>Number of Structures:</b>	1 bridge and 4 retaining walls
<b>Anticipated Environmental Determination/Document:</b>	Initial Study/Negative Declaration, Categorical Exclusion
<b>Legal Description</b>	Scour replace bridge

## 2. RECOMMENDATION

It is recommended that this PSSR be approved with the preferred alternative and that the project be programmed in the 2012 SHOPP.

### 3. PURPOSE AND NEED STATEMENT

**Need:**

According to the latest Bridge Inspection performed on 4/17/09, it has determined that this bridge needs to be replaced because of all the scour, spalls and cracks. There are longitudinal cracks in the AC deck surface and spalls with exposed reinforcements in girders at several locations. There is a large scour hole at Pier 2 location. From the Hydraulics report dated 05/29/02, it was determined that this structure to be scour critical. Furthermore, this structure has a history of settlement; Pier 2 is unstable for the calculated scour conditions. See Attachment E.

**Purpose:**

This project would improve safety to the public and maintenance workers and improve structural integrity and life span of the bridge.

### 4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA

#### 4A. Roadway Geometric Information

	Facility (1)	Through Traffic Lanes (2)			Paved Shoulder Width (3)		Median (4)	Shoulder is a Bicycle Lane (Y/N) (5)	Other Bicycle Lane Width (6)	Bicycle Route (7)	Facilities Adjacent to the Roadbed (8)
	Location	No. of Lanes	Lane Width	Type (Flex, Rigid, or Composite))	Left	Right	Width	Width	Width	(Y/N)	(Code/Width)
Existing	37.03	2	12'	Rigid	17.7'	17.7'	0	N	NA	N	P
Proposed	37.03	2	12'	Rigid	17.7'	17.7'	0	N	NA	N	P

Code for Column "Facilities Adjacent to the Roadbed":  
P: Pedestrian Walkway

**4B. Condition of Existing Facility (Repeat info for each homogeneous segment):**

(1) Pedestrian Facility Data

Facility Type and Location(s)	Meets ADA Standards?	If Facility does not meet ADA Standards, what feature(s) are not ADA compliant?	Status of Each Noncompliant Location
Sidewalks:	Yes		All ADA features would be built to standards within project limits.
Curb Ramps:	Yes		All ADA features would be built to standards within project limits.
Crosswalks:	Yes		All ADA features would be built to standards within project limits.
Driveways:	NA		
Shared bicycle/pedestrian path:	NA		
Others:	NA		

**4C. Structures Information**

Structures	Width Between Curbs			Replace Bridge Railings (Y or N)	Vertical Clearance			Work Identified in STRAIN (Y or N)	Replace Bridge Approach Rail (Y or N)	Replace Bridge Approach Slab	
	Exist	3R Std	Prop		Exist	3R Std	Prop			(Y/N)	#
Napa River Bridge/21-0018	59'	40'	59.33'	Y	NA	NA	NA	Y	Y	N	0

**4D. Vehicle Traffic Data**

Present Year ADT (2011) 8,900

Construction Year (2018) ADT 9,600

10-Year ADT (2028) 10,400

DHV 1,030

20-Year ADT (2038) 11,300

D 54.5%

% Trucks 4.11%

\*T.I. (10-Year) 8.0

ESAL (10-Year) 355,000

\*T.I. (20-Year) 8.5

ESAL (20-Year) 746,000

Safety Field-Review 8/23/11

Latest 3-Year Accident Data:

Location	Number of Accidents/Significance					Accident Rate (acc/mvm*)					
	Total	Fat	Inj	Wet	Dark	Actual			Average		
						Fat	F+I	Total	Fat	F+I	Total
Nap 29 - PM 36.9/37.1	5	0	0	0	1	0.00	0.00	1.08	0.02	0.62	1.55

acc/mvm = accidents per million vehicles miles of traffic, F = Fatality, I = Injury

Location(s) of Accident Concentration: Since the project is a spot location, it is not listed as a location of accident concentration.

Corrective Strategy: The bridge would be designed to the latest highway design standards.

## 5. CORRIDOR AND SYSTEM COORDINATION

SR 29 in District 04 is a 54.5 mile corridor that traverses Napa and Solano Counties from Interstate 80 in the south to Lake County in the north. The corridor links the City of Vallejo with American Canyon, Napa, and the smaller towns of the Napa Valley region in the northern area of Napa County.

The Governor's *Strategic Growth Plan 2006* (SGP) calls for an infrastructure improvement program that includes a major transportation component (Go California). The SGP is based on the premise that investments in mobility throughout the system will yield significant improvements in congestion relief. The District is developing a Corridor Plan for SR 29, but it does not anticipate any significant changes in the project area. This project is consistent with earlier State planning efforts.

The Napa County Transportation Plan is currently being updated, but the existing plan does not anticipate any significant changes in the project area. The *Wine Country Interregional Partnership Study*, a Caltrans-sponsored study, focuses on transportation issues related to the interaction between the North Bay counties (Mendocino, Lake, Sonoma, and Napa).

## 6. ALTERNATIVES

### 6A. Rehabilitation Strategy:

Because the existing Napa River Bridge is scour critical, the proposed strategy is to replace the bridge.



Existing two lanes of traffic (1 NB, 1 SB) would be maintained throughout construction. See Attachment D.

Stage One: Remove portion of existing southbound sidewalk to accommodate traffic shift.

Stage Two: Shift traffic onto existing southbound; remove the entire 1919 bridge and the 1952 portion of northbound; and construct portion of new bridge.

Stage Three: Shift traffic onto the new bridge; remove the remaining existing bridge; construct remaining portion of new bridge and connect with closure pour.

**6B. Design Exceptions:**

No design exceptions are anticipated.

**6C. Environmental Compliance:**

It is anticipated that an Initial Study/Negative Declaration will be needed to meet the requirements of the California Environmental Quality Act (CEQA). The anticipated documentation to meet requirements of the National Environmental Policy Act (NEPA) would be Categorical Exclusion. See Attachment G.

**6D. Hazardous waste disposal site required? If yes, where are sites?**

Before demolition of the existing bridge, a bridge survey will be necessary to identify any lead-based paint or asbestos-containing materials. If the scope of work involves soil excavation in the bridge approaches, a subsurface investigation might be necessary to assess possible surplus soil. As part of the Hazardous Waste Site Investigation, ground water testing may be required to determine if it is contaminated to develop contract provisions for its handling and disposal during construction. During the next phase, any other hazardous waste issues would be further investigated.

**6E. Other Agencies Involved (Permits/Approvals from Fish & Game, Corps of Engineers, Coastal Commission, etc.):**

This project will require Section 401 CWA Certification from the Regional Water Quality Control Board (RWQCB) since work will be performed within Napa River and National Pollutant Discharge Elimination System (NPDES) Permit (402) Coordination. Permits from the US Army Corps of Engineers and Fish and Game (1602) will also be required.

**6F. Materials and or disposal site needs and availability?**

This information is expected to be available in the PS&E phase. Per Caltrans Standard Specifications Section 7-1.13, if materials are to be disposed of and the Department has not made arrangement for disposal of the materials, the Contractor shall make arrangements for disposal of the materials outside the State right of way.

**6G. Highway planting and irrigation:**

Detail plans for highway planting and irrigation would be prepared during the PS&E phase. Estimated cost is included in the project cost estimate.

**6H. Roadside Design and Management:**

Not applicable

**6I. Stormwater Compliance:**

Since the project includes work in Napa River, permits from the U.S. Army Corps of Engineers and/or Department of Fish & Game will be required. Since the project has the potential to encounter groundwater in the structure excavations, which may involve non-storm water discharges, early discussion would be initiated with the Office of Water Quality regarding the handling and disposal of this water. A project-specific Waste Discharge Permit (WDP) may be required from the RWQCB.

The project involves approximately less than one acre of ground disturbance, and complies with the State Water Resources Control Board (SWRCB) issued Statewide Construction General Permit (Order No. 98-08-DWQ, National Pollutant Discharge Elimination System (NPDES) Order No.: CAS000002) for storm water discharges associated with construction activity. This applies to all storm water discharges from construction sites where clearing, grading, stockpiling, and/or excavation result in soil disturbances of 1.0 acre or greater. Construction activity that results in soil disturbances of less than 1.0 acre is also subject to the Construction General Permit if the construction activity is part of a larger Common Plan of Development totaling 1.0 acre or more of soil disturbing activities, or if there is potential for significant water quality impairment resulting from the activity, as determined by the RWQCB. All projects that are subject to the Construction General Permit require a Storm Water Pollution Prevention Plan (SWPPP), and a Water Pollution Control Program (WPCP). A Storm Water Data Report (SWDR) has also been prepared for this project which summarizes action taken in compliance with the permit. A signed SWDR Long Form signature sheet is included in Attachment H.

Pursuant to the scope of this project and in accordance with the Department's

NPDES and Construction General Permits, Best Management Practices (BMPs) Best Management Practices (BMPs) would need to be implemented to address the temporary water quality impacts resulting from the construction activities in the project. BMPs will include the measures of soil stabilization, sediment control, wind erosion control, tracking control, non-storm water management, and waste management/materials pollution control to the Maximum Extent Practicable (MEP). Department-approved Treatment BMPs include biofiltration strips/swales, infiltration basins, detention basins, media filters, and multi-chamber treatment trains.

Groundwater may be encountered during the deep excavations for the bridge footings. If significant amount of groundwater will be encountered, dewatering may be required.

Because the project has works in water bodies, Temporary Creek Diversion System may be required. Early discussion with Water Pollution Control Branch is required for Temporary Creek Diversion System.

Typical erosion control measures include permanent vegetation in the form of erosion control seeding, erosion control netting and fiber rolls.

#### **6J. Right of Way:**

A Right of Way Data Sheet has been prepared based on the scope of the work described and is included in Attachment C. Temporary construction easements are needed. Potholing of existing utility facilities may be required. Relocation of utilities would be required because there are existing utilities attached to the bridge.

This bridge, the gateway to downtown Calistoga, is situated with business buildings surrounding it, with the nearest building just 10 feet from the existing abutment wall. Another instance, at one abutment, a wall, proposed to be replaced, is retaining a patio to a restaurant. Accesses to these businesses would be impacted, especially during the excavation and construction of the foundations. Easements are needed for building temporary shoring and tie-back walls; tie-backs would encroach beyond existing State right of way.

During the demolition and excavation of the foundation, nearby buildings would have to be closely monitored at all times.

#### **6K. Railroad Involvement:**

There is no railroad involvement in this project.

**6L. Salvaging and recycling of hardware and other non-renewable resources:**

Any existing materials deemed salvageable would be salvaged to the extent possible.

**6M. Prolonged temporary ramp closures:**

Not applicable

**6N. Recycled Materials:**

Any materials deemed recyclable would be recycled to the extent possible.

**6O. Local and Regional Input:**

Bicyclists must be accommodated during construction by providing "Share the Road" signs plus "Bicycle Crossing" signs to alert motorists of the presence of cyclists in the narrowed travel lanes.

**6P. What are the consequences of not doing this entire project?**

According to the latest Bridge Inspection performed on 4/17/09, it has determined that this bridge needs to be replaced because of all the scour, spalls and cracks. There are longitudinal cracks in the AC deck surface and spalls with exposed reinforcements in girders at several locations. There is a large scour hole at Pier 2 location. From the Hydraulics report dated 05/29/02, it was determined that this structure to be scour critical. Furthermore, this structure has a history of settlement; Pier 2 is unstable for the calculated scour conditions.

Consequently, the bridge will continue to deteriorate.

**6Q. List all alternatives studied, cost, reasons not recommended, etc.:**

The "No-build" alternative was rejected because it does nothing to alleviate the structural and safety issues related to the existing condition of the bridge.

**7. TRANSPORTATION MANAGEMENT**

**7A. Transportation Management Plan**

A Transportation Management Plan (TMP) Data Sheet has been prepared for this project and is included in Attachment F. It is anticipated that two-way traffic be maintained throughout construction. TMP would include provisions for pedestrian access during construction. A conceptual staging plan would

be developed during the PA/ED phase.

TMP will be required for this project. It is a special program that will be implemented during construction to minimize and prevent delay and inconvenience to the travelling public. The proposed construction and improvements may include roadwork that requires shoulder and lane closures.

The TMP for the project will be developed and refined during PA/ED and PS&E phases, supported by detailed traffic studies to evaluate traffic operations. The need for necessary lane closures during off-peak hours or at night will be identified, as required. The TMP may include press releases to notify and inform motorists, businesses, community groups, local entities, emergency services, and politicians of upcoming closures. Various TMP elements such as portable Changeable Message Signs and CHP Construction Zone Enhanced Enforcement Program may be utilized to alleviate and minimize delay to the travelling public.

#### **7B. Vehicle Detection Systems**

Not Applicable

### **8. ENVIRONMENTAL DETERMINATION/DOCUMENT**

The Preliminary Environmental Analysis Report, dated 9/16/11 and included in Attachment G, identifies and helps to avoid potential environmental impacts and effects of the project. It also assists in development of alternatives and identifies technical studies and related costs required in the PA/ED phase.

It is anticipated that an Initial Study/Negative Declaration will be needed to meet the requirements of the California Environmental Quality Act (CEQA). The anticipated documentation to meet requirements of the National Environmental Policy Act (NEPA) would be Categorical Exclusion. More detailed studies during PA/ED phase may change this assessment. The final report is expected to be a joint NEPA/CEQA document during PA/ED.

### **9. FUNDING/SCHEDULING**

#### **9A. Cost Estimate:**

##### **Proposed funding 2012 SHOPP**

STRAIN and other Structural Work (by Structure)		<u>Yes/No</u>	<u>Cost</u>
(A)	Replace	<u>Yes</u>	<u>\$4,979,000</u>
(B)	Rehab	<u>No</u>	

(C)	Scour Correction	<u>Yes</u>	<u>Included</u>
<b>STRUCTURE COSTS SUBTOTALS (incl. Contingency and Mobilization)</b>			<b><u>\$4,979,000</u></b>
<b>District work</b>			
Earthwork			
(A)	Roadway Excavation		<u>\$90,000</u>
(B)	Import Borrow		<u>\$4,500</u>
Pavement Structural Section			
(C)	Bridge Approach Slab		<u>\$25,000</u>
(D)	Hot Mix Asphalt		<u>\$60,000</u>
(E)	Sidewalk		<u>\$5,000</u>
Drainage			
(F)	Hydraulics		<u>\$50,000</u>
Specialty Items			
(G)	Construction Area Signs		<u>\$1,000</u>
(H)	Water Pollution Control		<u>\$150,000</u>
(I)	Detour Local Streets		<u>\$200,000</u>
(J)	Treatment BMPs		<u>\$100,000</u>
(K)	Revegetation Planting		<u>\$400,000</u>
(L)	Erosion Control		<u>\$100,000</u>
(M)	Rock Slope Protection		<u>\$40,000</u>
(N)	Roadside Management		<u>\$10,000</u>
(O)	Electrical Work		<u>\$10,000</u>
Traffic Items			
(P)	Traffic Stripes and Pavement Markings		<u>\$10,000</u>
(Q)	Pavement Markers		<u>\$2,500</u>
(R)	Traffic Management Plan		<u>\$200,000</u>
(S)	Traffic Control System		<u>\$40,000</u>
(T)	Crash Cushion & Related Items		<u>\$15,000</u>
(U)	RE Office		<u>\$200,000</u>
*Minor Items			<u>\$85,700</u>
*Roadway Mobilization			<u>\$179,900</u>
*Supplemental Work (5%)			<u>\$89,900</u>
*Contingencies (25%)			<u>\$517,100</u>
<b>DISTRICT COSTS SUBTOTALS</b>			<b><u>\$2,585,600</u></b>
<b>RIGHT OF WAY (incl. environmental mitigation)</b>			<b><u>\$674,000</u></b>
<b>TOTAL PROJECT COST (current)</b>			<b><u>\$8,238,000</u></b>
<b>TOTAL PROJECT COST (escalated to mid-construction)</b>			<b><u>\$9,878,000</u></b>

\* Only District work

### 9B. Project Support:

	PA&ED 0 Phase		Design 1 Phase		Right of Way 2 Phase		Construction 3 Phase		Total
	Dist	DES	Dist	DES	Dist	DES	Dist	DES	
Estimated PY's	4.3	2.1	2.9	2.9	2.4	0	3.2	3.2	21
Estimated PS \$'s	730	360	490	490	400	0	550	550	3570
Estimated PYE \$'s (\$1000's)									0
Total \$'s (\$1000's)	730	360	490	490	400	0	550	550	3570

### 9C. Project Schedule:

Milestones	Delivery Date (Month, Day, Year)
Begin Environmental	May 2012
Notice of Intent (NOI)	May 2012
Circulate DED	September 2013
PA & ED	March 2014
Regular Right of way	May 2014
Project PS&E	November 2015
Right of way Certification	March 2016
Ready to List	March 2016
Approve Contract	June 2016
Contract Acceptance	December 2017
End Project	December 2018

### 10. FEDERAL COORDINATION

Per SAFETEA-LU, this project is eligible for federal-aid funding and is considered to be STATE-AUTHORIZED under current FHWA-Caltrans Stewardship Agreements.

### 11. SCOPING TEAM FIELD REVIEW ATTENDANCE ROSTER:

Name	Division	Phone Number
Steve Ng	Structure Hydraulics, HQ	916-227-8018
Jay Quiogue	Structure Design	916-227-8621
Sergio Damian	Structure Design	916-227-8996
Nick Abuhamdieh	Structure Construction	707-428-2058

Chau Ha	Structure Construction	707-428-2069
Sunny Yang	Structure Foundation	510-286-4808
Stewart Lee	Design SHOPP	510-286-5986
Marcus Chan	Design SHOPP	510-622-8840
Nazeer Babacarkhial	Design SHOPP	510-622-5698

Field review took place on August 23, 2011.

## 12. REVIEWS

Scoping team field review attendance roster (see above).

Project Reviewed by:

District Maintenance Fuk Nyan Kurniawan Date 9/15/11

District Safety Hung Tran Date 9/15/11

HQ Division of Design \_\_\_\_\_ Date \_\_\_\_\_

HQ Program Advisor Takako Fujioka Date 9/15/11

FHWA NA Date \_\_\_\_\_

Others NA Date \_\_\_\_\_

## 13. ATTACHMENTS

- A. Layout Plan
- B. Profile
- C. Right of Way Data Sheet
- D. Advance Planning Study
- E. Bridge Inspection Report (4/17/09) and Scour Evaluation Report (1/27/09)
- F. Transportation Management Plan Data Sheet
- G. Preliminary Environmental Analysis Report
- H. Storm Water Data Report



## Attachment A



## Attachment B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	NAP	29	37.03		

REGISTERED CIVIL ENGINEER    DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

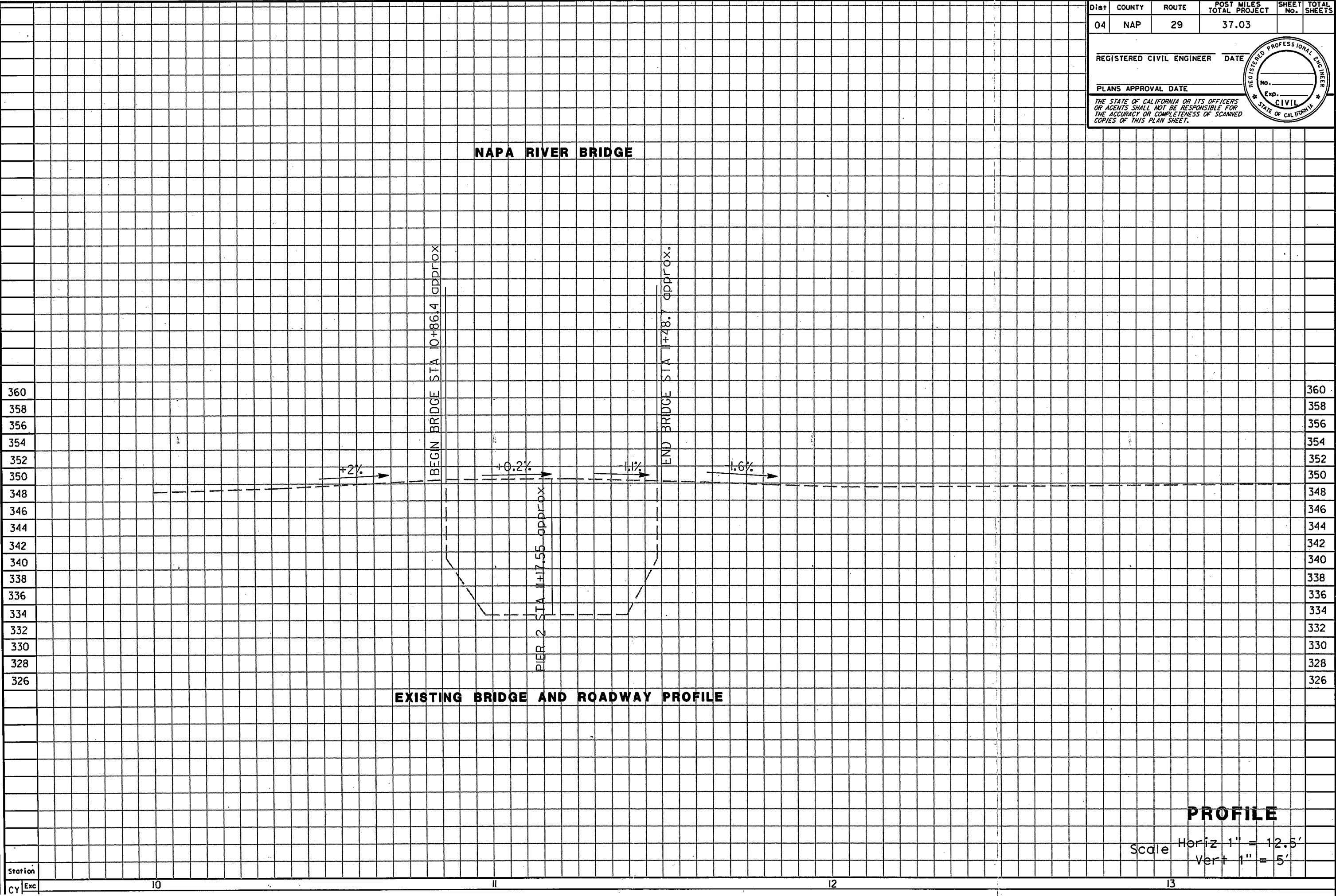
REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

CIVIL

STATE OF CALIFORNIA



## Attachment C

T0: Office of Design SHOPP

Date 9/9/2011  
Dist 4 Co Nap Rte 29  
PM 37.03

Attention: Stewart Lee  
District Branch Chief

EA 3G640K (04-12000134)

From: ENID LAU  
Right of Way Resource Manager

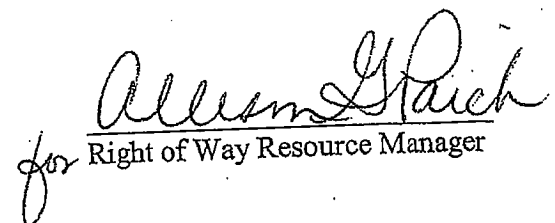
Bridge Replacement  
D.S. #5998

Subject: Current Estimated Right of Way Costs

We have completed an estimate of the right of way costs for the above referenced project based on maps we received from you on August 29, 2011 and the following assumptions and limiting conditions.

- ☐ 1. The mapping did not provide sufficient detail to determine the limits of the right of way required.
- ☐ 2. The transportation facilities have not been sufficiently designed so our estimator could determine the damages to any of the remainder parcels affected by the project.
- ☐ 3. Additional right of way requirements are anticipated, but are not defined due to the preliminary nature of the early design requirements.
- ☐ 4. This estimate does not include \$ \_\_\_\_\_ right of way costs previously incurred on the project, which may affect the total project right of way costs for programming purposes.
- ☐ 5. We have determined there are no right of way functional involvements in the proposed project at this time, as designed.

Right of Way Lead Time will require a minimum of 22 months after we begin receiving final right of way requirements (PYPSCAN node No. 224), necessary environmental clearance has been obtained, and freeway agreements have been approved. From the date of receipt of final right of way requirements (PYPSCAN node No. 265), we will require a minimum of 19 months prior to the date of certification of the project. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed. Either of these actions may reflect adversely on the District's other programs or our public image generally.

  
for Right of Way Resource Manager

Attachments:

- ☒ Right of Way Data Sheet – Page One (always required)
- ☒ Right of Way Data Sheet – All Pages (required when interest in real property is being acquired)
- ☒ Utility Information Sheet
- ☐ Railroad Information Sheet

**RIGHT OF WAY DATA SHEET**

TO: Design SHOPP Date 9/07/11 D.S. # 5998

Dist 04 Co Nap Rte 29 PM 37.03

ATTN: Stewart Lee EA 3G640K

Project Description: Bridge Replacement

SUBJECT: Right of Way Data – Alternate No. \_\_\_\_\_

1. Right of Way Cost Estimate:

	Current Value (Future Use)	Escalation Rate	Escalated Value
A. Acquisition, including Excess Lands, Damages, and Goodwill.	\$ <u>102,000.00</u>	%	\$ <u>102,000.00</u>
Mitigation Costs			\$ <u>510,000.00</u>
Grantor's Appraisal Cost			\$ <u>10,000.00</u>
B. Utility Relocation (State Share)	\$ <u>50,000.00</u>	%	\$ <u>50,000.00</u>
C. Railroad (Service Contract)			\$ <u>00.00</u>
D. Relocation Assistance	\$ <u>2,000.00</u>	%	\$ <u>2,000.00</u>
E. Clearance/Demolition	\$ <u>00.00</u>	%	\$ <u>00.00</u>
F. Title and Escrow Fees	\$ <u>00.00</u>	%	\$ <u>00.00</u>
G. <u>TOTAL ESCALATED VALUE</u>			\$ <u>674,000.00</u>
H. Construction Contract Work	\$ _____		

2. Anticipated Date of Right of Way Certification \_\_\_\_\_

3. Parcel Data:

Type	Dual/Appr	Utilities	RR Involvements	
X _____		U4-1 <u>2</u>	None	<u>X</u>
A _____		-2 <u>2</u>	C&M Agrmt	_____
B <u>2</u>	_____	-3 _____	Svc Contract	_____
C _____	_____	-4 _____		
D _____	_____	U5-7 <u>2</u>	Design	_____
E <u>XXXX</u>	_____	-8 _____	Const.	_____
F <u>XXXX</u>	_____	-9 _____	Lic/RE/Clauses	_____
			Misc R/W Work	
			RAP Displ	<u>2</u>
			Clear Demo	<u>0</u>
			Const. Permits	<u>0</u>
			Condemnation	<u>0</u>
Total <u>2</u>				

Areas: Right of Way \_\_\_\_\_ No. Excess Parcels \_\_\_\_\_ Excess \_\_\_\_\_

Enter PMCS Screens 9 / 8 / 2011 by P.T.

Enter AGRE Screen (Railroad data only) \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ by \_\_\_\_\_

4. Are there any major items of construction contract work?  
Yes ☐ No ☒ (If yes, explain)

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.). No right of way required ☐

There are two parcels required for this project. The temporary construction easements are required from the back yard of the both properties abutting the Napa River.

6. Is there an effect on assessed valuation?  
Yes ☐ Not Significant ☐ No ☒ (If yes, explain)

7. Are utility facilities or rights of way affected? Yes ☒ No ☐  
(If yes, attach Utility Information Sheet Exhibit 01-01-05)

8. Are railroad facilities or rights of way affected? Yes ☐ No ☒  
(If yes, attach Railroad Information Sheet Exhibit 01-01-06)

9. Were any previously unidentified sites with hazardous waste and/or material found?  
Yes ☐ None evident ☒ (If yes, attach memorandum per Procedural Handbook Volume 1, Section 101.011)

10. Are RAP displacements required? Yes ☒ No ☐  
(If yes, provide the following information)

No. of single family \_\_\_\_\_ No. of business/non profit 2

No. of multi-family \_\_\_\_\_ No. of farms \_\_\_\_\_

Based on Draft/Final Relocation Impact Statement/Study dated \_\_\_\_\_, it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

11. Are there material borrow and/or disposal sites required? Yes ☐ No ☒  
(If yes, explain)

12. Are there potential relinquishments and/or abandonments? Yes ☐ No ☒  
(If yes, explain)

13. Are there any existing and/or potential Airspace sites? Yes ☐ No ☒  
(If yes, explain)



14. Are there Environmental Mitigation costs? Yes ☒ No ☐  
(If yes, explain)

Mitigation costs were provided by Stewart Lee.

15. Indicate the anticipated Right of Way schedule and lead time requirements. (Discuss if District proposes less than PMCS lead time and/or if significant pressures for project advancement are anticipated.)

PYPSCAN lead time (from Regular R/W to project certification) 22 months

16. Is it anticipated that all Right of Way work be performed by CALTRANS staff?  
Yes ☒ No ☐ (If no, discuss)

### Assumptions and Limiting Conditions

- This data sheet was completed without a hazardous waste/materials report.
- Information on this data sheet was based on maps provided by Stewart Lee on 8/29/11.

Evaluation Prepared By: Lynn White

Right of Way: Name

Lynn White

Date

9/7/11

Railroad: Name

Pat S. Lee

Date

9/8/11

Utilities: Name

Stewart Lee

Date

9/7/11

Recommended for Approval:

Alison L. Paich  
Right of Way Capital Cost Coordinator

I have personally reviewed this Right of Way Data Sheet and all supporting information. It is my opinion that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper subject to the limiting conditions set forth, and find this Data Sheet complete and current.

[Signature]  
Chief, RW Appraisal Services

Date

9/8/11

cc: Program Manager  
Project Manager

**UTILITY INFORMATION SHEET**

1. Utility Owners located within project limits:

PG&E – gas and electric  
AT&T  
City and County of Napa – water & sewer  
Comcast

2. Facilities potentially impacted by project (If known, include Owner(s) and facility type(s)):

PG&E – gas and electric  
AT&T - telephone  
City and County of Napa – water & sewer  
Comcast - cable

3. Anticipated Workload:

  X   Utility Verification required  
  X   Positive Identification  
  X   Utility Relocation  
       Other (Specify)

4. Additional information concerning anticipated utility involvements (include limiting conditions and a narrative addressing likelihood that conflicts will occur):

       Involves possible relocation of electric transmission facilities  
(If X'd, Data sheet should be forwarded to environmental)

5. PMCS input information

U4-1   2   Owner Expense Involvements  
U4-2   2   State Expense Involvements  
          (Conventional, No Fed Aid)  
U4-3        State Expense Involvements  
          (Freeway, No Fed Aid)  
U4-4        State Expense Involvements  
          (Conventional or Freeway, Fed Aid)

U5-7   2   Verifications-without involvements  
U5-8        Verifications-50% involvements  
U5-9        Verifications resulting in involvements

NOTE: The sum of the U-4's must equal the sum of 1/2 of the U5-8's and all of the U5-9's.

**ESTIMATED STATE SHARE OF COSTS \$50,000.00**

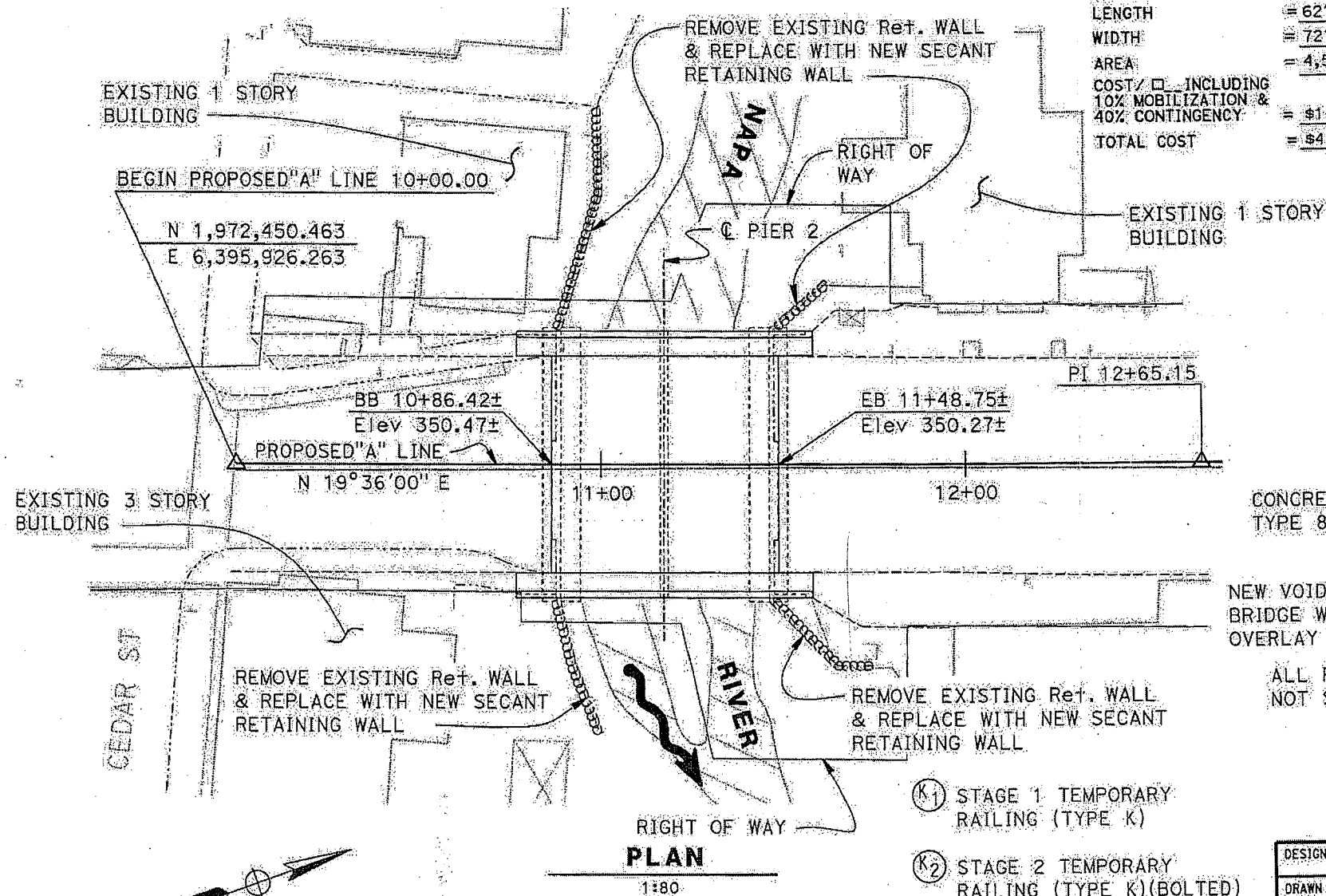
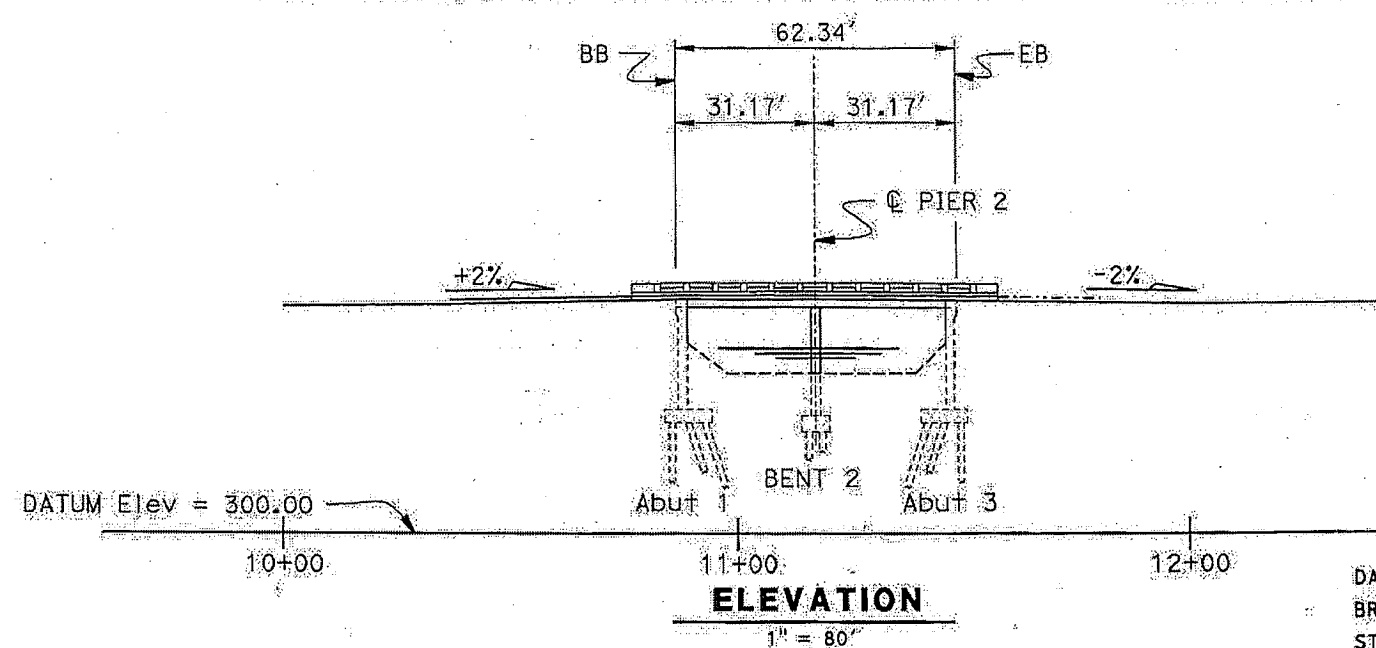
Prepared by:

Suresh Dharmani  
Right of Way Utility  
Coordinator

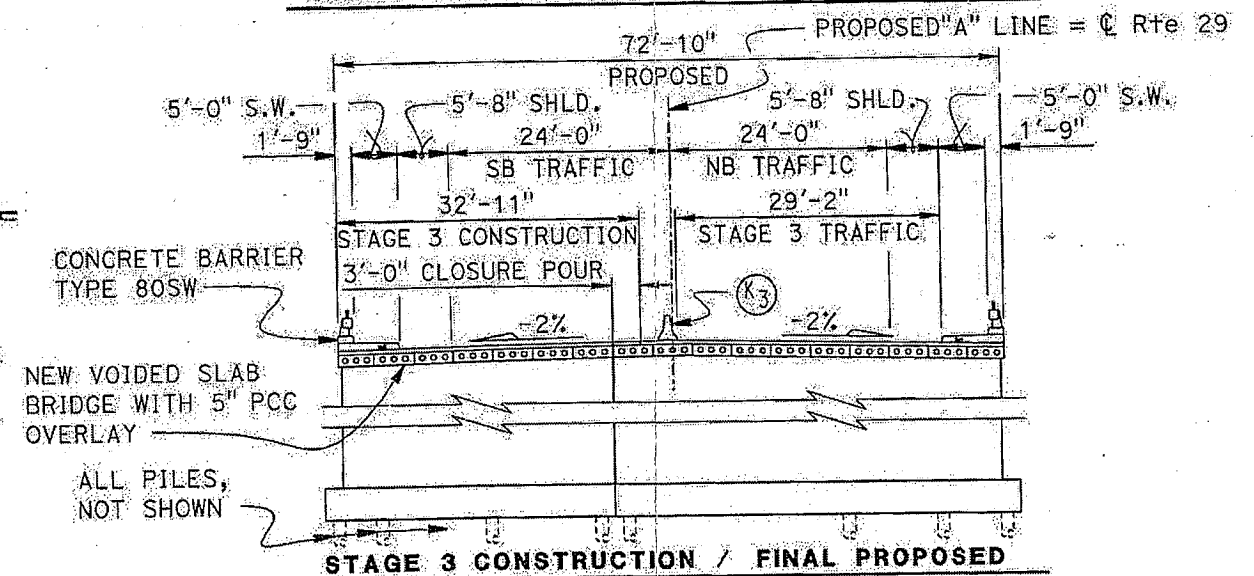
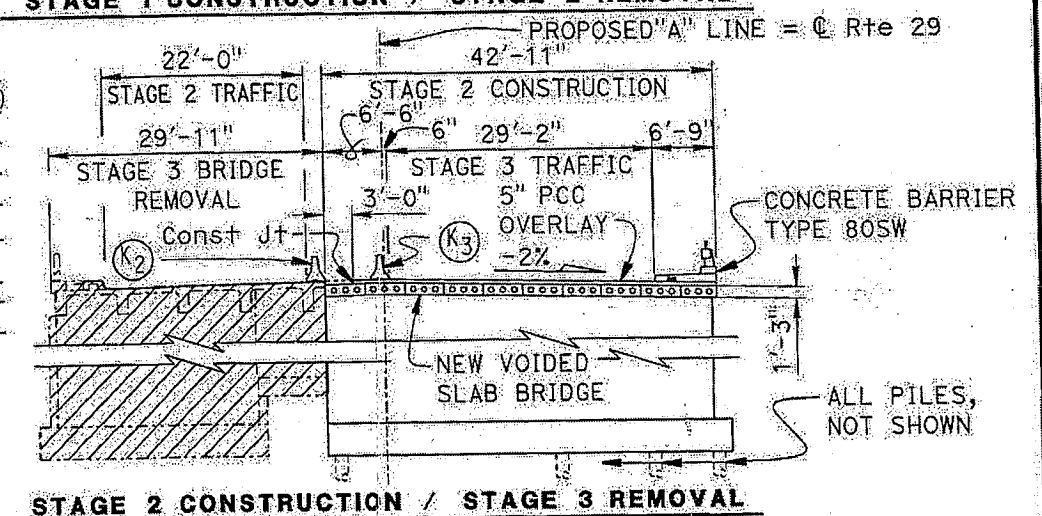
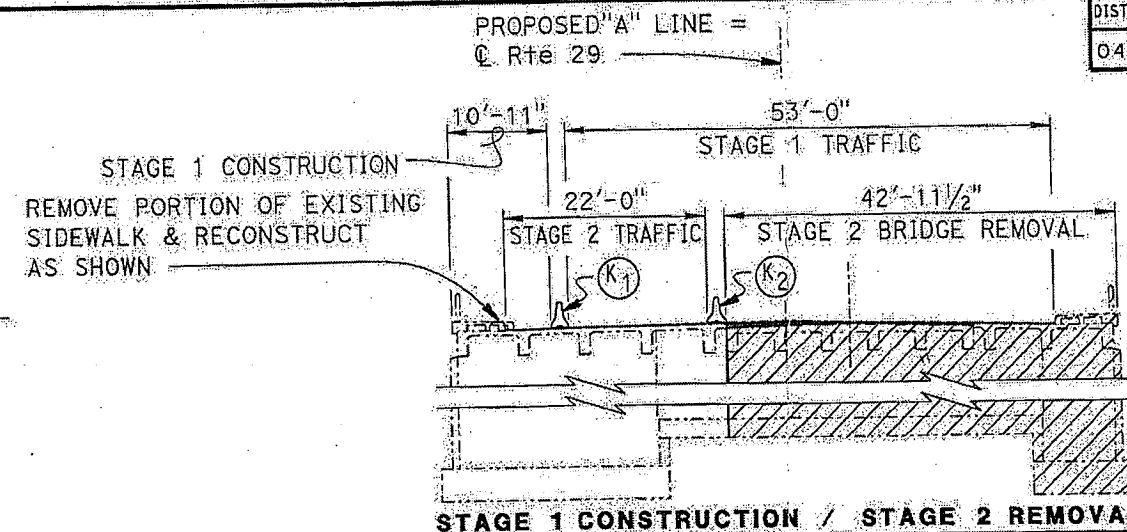
9/7/11  
Date

## Attachment D

DIST	COUNTY	ROUTE	POST MILE
04	NAP	29	37.0



DATE OF ESTIMATE	09-02-11
BRIDGE REMOVAL	= 1 (4,540 SQFT)
STRUCTURE DEPTH	= 1'-8"
LENGTH	= 62'-4"
WIDTH	= 72'-10"
AREA	= 4,540 SQFT
COST / □ INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	= \$1,097 / SQFT
TOTAL COST	= \$4,979,000



## TYPICAL SECTIONS

1" = 40'

- (K1) STAGE 1 TEMPORARY RAILING (TYPE K)
- (K2) STAGE 2 TEMPORARY RAILING (TYPE K)(BOLTED)
- (K3) STAGE 3 TEMPORARY RAILING (TYPE K)(BOLTED)

DESIGNED BY	Jay Quiogue	DATE	9-11
DRAWN BY	Jeff Thorne	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH
<b>4</b>

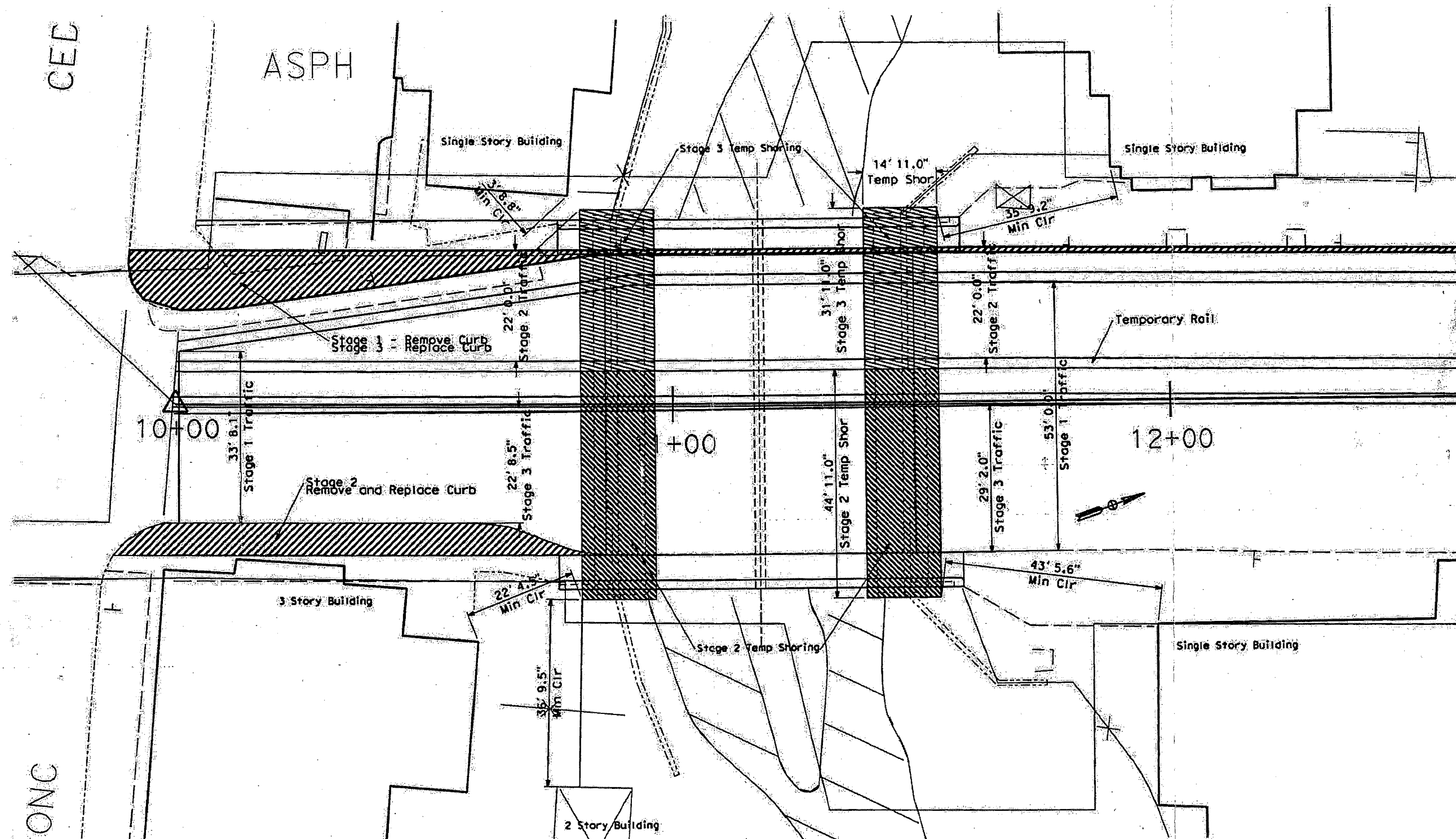
## PLANNING STUDY

## NAPA RIVER BRIDGE (REPLACE)

UNIT: 04	BRIDGE No. 21-0018
SCALE: AS SHOWN	PROJECT No. & PHASE: 0412000134

CONTRACT No.: X

DIST	COUNTY	ROUTE	POST MILE
04	NAP	29	37.0



NO SCALE

DESIGNED BY	Jay Quiogue	DATE	9-11
DRAWN BY	Jeff Thorne	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE  
DESIGN  
BRANCH  
**4**

## PLANNING STUDY

NAPA RIVER BRIDGE (REPLACE)

UNIT: 04	BRIDGE No. 21-0018
SCALE: AS SHOWN	PROJECT No. & PHASE: 04.12000134

CONTRACT No. X

**PLEASE NOTE THE PROJECT COMPLEXITY:**

Because of extremely close proximity to surrounding privately-owned buildings, removal of the existing bridge and construction of its replacement will require considerable efforts from all parties involved to assure a quality finished product while protecting the surrounding community.

As per the project team decision from the phone conference with the District on September 1, 2011, Structure Design has prepared the preliminary cost estimate for the replacement of the existing Napa River Bridge based on the following key assumptions:

**Key Assumptions:**

- During construction, the State will need to mitigate the safety hazards to the public because the bridge is the gateway to downtown Calistoga and is frequented by locals and tourists, especially pedestrians.
- The State is willing to take on liability of possible damage to surrounding privately-owned properties during as well as after construction. Owners of surrounding properties may hold responsible the State for any future damage that occurs after construction is complete.
- The State obtains Right-of-Way to construct the following:
  - o Temporary shoring at the abutments as tie-backs will encroach beyond current Right-of-Way.
  - o Secant tie-back walls to replace existing un-reinforced masonry walls and reinforced concrete walls as tie-backs will encroach beyond current Right-of-Way.
- The temporary shoring systems and the new secant tie-back walls need to be designed and installed to protect the existing private property adjacent to the bridge.
- Staged construction is sequenced to accommodate removal of the 1919 bridge in its entirety. The 1919 bridge abutments are un-reinforced masonry walls and Structures is not confident that these can be relied upon for staged construction purposes.
- City will allow modifying curbs of adjacent roadways to accommodate the proposed staged construction sequence.
- Precast superstructure is preferred to decrease construction time, resulting in less impact to local businesses.
- Maintain current two span configuration to decrease the depth of the superstructure, consequently increasing the bridge freeboard.
- Pile foundations are necessary to avoid future scouring problems.
- Existing utilities will need to be relocated.

(The list above is not all-inclusive.)

\*\* During the next phase, the project scope will probably be changed to "scour" retrofit as opposed to full bridge replacement.

DIST.	COUNTY	ROUTE	POST MILE
04	NAP	29	37.0

DESIGNED BY: Joy Outague		DATE: 9-11	STRUCTURE DESIGN BRANCH <b>4</b>	PLANNING STUDY NAPA RIVER BRIDGE (REPLACE)
DRAWN BY: Jeff Thorne		DATE: 9-11		
CHECKED BY: X		DATE: X		
APPROVED: X		DATE: X		
PROJECT No. & PHASE: 0412000134			CONTRACT No.: X	

☒ PID ESTIMATE

Revised - August 10, 2011

RCVD BY: RP

IN EST: 9/6/2011

OUT EST: 9/6/2011

BRIDGE: NAPA RIVER BRIDGE (REPLACE)

BR. No.: 21-0018

DISTRICT: 04

TYPE: 2 SPAN PC/PS VOIDED SLAB BRIDGE

RTE: 29

CU: 59-224

CO: NAPA

EA: 3G640K / 412000134

PM: 37.03

LENGTH: 62'-4"

WIDTH: 72'-10"

AREA (SF) = 4,540

DESIGN SECTION:

BRANCH: 4

# OF STRUCTURES IN PROJECT:

04

EST. NO. 1

PRICES BY:

Pga

COST INDEX: 297

PRICES CHECKED BY:

Pga

DATE: 9/6/2011

QUANTITIES BY:

JAY QUIOGUE

DATE: 8/31/2011

	CONTRACT ITEMS	TYPE	UNIT	QUANTITY	PRICE	AMOUNT
1	REMOVE BRIDGE		SF	4,540.00	\$30.00	\$136,200.00
2	2 SPAN T-GIRDER BRIDGE					
3						
4	2 SPAN PC/PS VOIDED SLAB BRIDGE		SF	4,540.00	\$200.00	\$908,000.00
5	15" DEEP SLAB + 5" DECK					
6	PIER WALL AND STRUTTED ABUTMENTS					
7	ON PILE FOUNDATIONS					
8						
9	REMOVE RETAINING WALLS		CY	359	\$500.00	\$179,500.00
10						
11	SECANT WALL (H = 30') (TOTAL 4 WALLS)		LF	3,840	\$150.00	\$576,000.00
12	64 30" DIAMETER CHD PILES @ 60' LONG					
13	TIEBACK ASSEMBLY (SECANT WALLS)		EA	64	\$4,000.00	\$256,000.00
14	ARCHITECTURAL TREATMENT (SECANT WALLS)		SF	4,000	\$20.00	\$80,000.00
15						
16	CONCRETE BARRIER	80SW	LF	163	\$300.00	\$48,780.00
17	ARCHITECTURAL TREATMENT (BARRIERS)		SF	1,138	\$10.00	\$11,382.00
18						
19	CONSTRUCTION STAGING					
20	3 STAGES					
21						
22	TEMPORARY RAILING	K	LF	780	\$25.00	\$19,500.00
23						
24	STAGE 1 REMOVE CURB (BRIDGE)		CY	3	\$1,000.00	\$3,000.00
25						
26	STAGE 2 TEMP SHORING (WITH MONITORING)		SF	1,348	\$300.00	\$404,250.00
27	SOLDIER PILE WITH TIE BACKS OR					
28	COFFERDAM (H = 30')					
29						
30	STAGE 3 TEMP SHORING (WITH MONITORING)		SF	958	\$300.00	\$287,250.00
31	SOLDIER PILE WITH TIE BACKS OR					
32	COFFERDAM (H = 30')					
33						
34						
35						
36	SCOUR CRITICAL					

#### ROUTING

1. DESIGN SECTION

2. OFFICE OF BRIDGE DESIGN - NORTH

3. OFFICE OF BRIDGE DESIGN - CENTRAL

4. OFFICE OF BRIDGE DESIGN - SOUTH

5. OFFICE OF BRIDGE DESIGN - WEST

6. OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

SUBTOTAL	\$2,909,862
TIME RELATED OVERHEAD	\$290,986
MOBILIZATION (@ 10%)	\$355,650
SUBTOTAL BRIDGE ITEMS	\$3,556,498
CONTINGENCIES @ 40%	\$1,422,599
BRIDGE TOTAL COST	\$4,979,097
COST PER SQ. FOOT	\$1,096.72
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$4,979,097
BUDGET ESTIMATE AS OF 9/6/11	\$4,979,000

COMMENTS:



## Attachment E



DEPARTMENT OF TRANSPORTATION  
Structure Maintenance & Investigations

Bridge Number : 21 0018  
Facility Carried: STATE ROUTE 29  
Location : 04-NAP-029-37.03-CSTG  
City : CALISTOGA  
Inspection Date : 04/17/2009

## Bridge Inspection Report

Inspection Type  
Routine ☒ FC ☐ Underwater ☐ Special ☐ Other ☐

**STRUCTURE NAME:** NAPA RIVER

### CONSTRUCTION INFORMATION

Year Built : 1919                      Skew (degrees): 0  
Year Widened: 1952                    No. of Joints : 0  
Length (m) : 18.9                      No. of Hinges : 0

Structure Description: RC "T" beam (6 girders) on RC pier and masonry abutments widened on both sides with "T" beams (8 girders) on RC abutments and pier. All on spread footings.

Span Configuration : 2 @ 8.3 m

### LOAD CAPACITY AND RATINGS

Design Live Load: M-13.5 OR H-15  
Inventory Rating: 47 metric tonnes                      Calculation Method: LOAD FACTOR  
Operating Rating: 78.1 metric tonnes                    Calculation Method: LOAD FACTOR  
Permit Rating : PPPPP  
Posting Load : Type 3: Legal                      Type 3S2: Legal                      Type 3-3: Legal

### DESCRIPTION ON STRUCTURE

Deck X-Section: 0.1 m br, 1.8 m sw, 17.9 m, 1.8 m sw, 0.1 m br  
Total Width: 22.2 m                      Net Width: 18.0 m                      No. of Lanes: 4  
Rail Description: Steel Baluster.                      Rail Code : 0000  
Min. Vertical Clearance: Unimpaired

### DESCRIPTION UNDER STRUCTURE

Channel Description: Boulders and sand.

### CONDITION TEXT

WORK DONE  
The cracks in the AC were sealed.

### CONDITION OF STRUCTURE

The water depth was approximately 0.3 m in Span 2. All of the visible elements were inspected except the nose of Pier 2 due to the large scour hole at the location.

The approach roadways and sidewalks at both abutments have a history of settlement first noted in the Supplemental Report dated 11/14/60. This is particularly evident in the sidewalks on the upstream side of this structure. These sidewalks have been patched several times to account for continued differential settlement. The amount of settlement was measured at the following locations:

Abutment 1, Right - 25 mm  
Abutment 3, Right - 25 mm

There are longitudinal cracks in the AC deck surface that seem to coincide with the bridge widening joints.

There is a 0.1 m diameter spall with exposed transverse reinforcement in Girder 11 in Span 1. This condition was previously reported and remains unchanged.

At Girder 6, Span 2, there is a spall and unsound concrete with several exposed square

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21 0018/AAAN/16383

CONDITION TEXT

reinforcing bars. One longitudinal bar and four transverse bars are exposed at this location and all have surface rust. The affected area is approximately 5 m long.

At Girder 11, Span 2, there is a large longitudinal crack and multiple incipient spalls along its bottom face. Approximately 4 m of the girder is cracked and one area is patched.

There is a 3 m long vertical crack in Pier 2 under Girder 5. See the attached photo.

Three cubic meters of debris is hung up on the nose of Pier 2.

MISCELLANEOUS

The 7/15/2008 channel cross section was spot checked at Pier 2 and remained unchanged.

SCOUR

The hydraulics report dated 05/29/02 determined this structure to be scour critical.

<u>ELEMENT INSPECTION RATINGS</u>										
F#Elem	Element Description		Env	Total	Units	Qty in each Condition State				
					Qty	St. 1	St. 2	St. 3	St. 4	St. 5
101 13	Concrete Deck	- Unprotected w/ AC Overlay	2	420	sq.m.	420	0	0	0	0
101 110	Reinforced Conc	Open Girder/Beam	2	269	m.	252	0	17	0	0
101 210	Reinforced Conc	Pier Wall	2	22	m.	20	2	0	0	0
101 215	Reinforced Conc	Abutment	2	28	m.	24	4	0	0	0
101 217	Other Material	Abutment	2	16	m.	16	0	0	0	0
101 330	Metal Bridge Railing	- coated or uncoated	2	51	m.	51	0	0	0	0
101 361	Scour		2	1	ea.	0	1	0		

WORK RECOMMENDATIONS

RecDate: 04/17/2009	EstCost: \$2,000	Remove the debris that has accumulated on the nose of Pier 2.
Action : Sub-Misc.	StrTarget: 2 YEARS	
Work By: BRIDGE CREW	DistTarget:	
Status : PROPOSED	EA:	

RecDate: 07/01/2002	EstCost: \$750,000	Scour critical bridge due to potential undermining of Pier 2. Proposed countermeasure alternatives are:  1). Replace the structure, keeping structure depth to a minimum due to lack of freeboard during high flows. The estimated cost is \$750,000.  2). Fully line the channel bed under the bridge with a PCC slab. This option should include a 1.5m deep cutoff wall at the upstream and downstream ends of the slab to prevent undermining. Estimated cost is \$80,000.  3). Place a PCC apron around the upstream end of Pier 2. Limits of apron to be 10
Action : Sub-Scour Mitigate	StrTarget: 2 YEARS	
Work By: STRAIN	DistTarget:	
Status : PROPOSED	EA:	

Printed on: Wednesday 08/12/2009 07:59 AM

21 0018/AAAN/16383

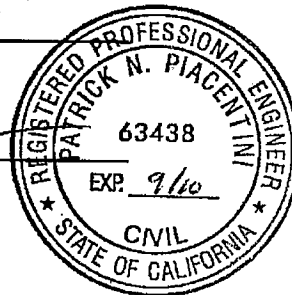
WORK RECOMMENDATIONS

ft on either side of the pier, 10 ft upstream of the pier nose and 30 ft downstream of pier nose. Bottom of slab to be level with top of pier footing. Upstream end of slab to be protected from undermining with a 5 ft deep cutoff wall. Estimated quantity is 25 cu yd; estimated cost is \$25,000.

RecDate: 11/16/2001	EstCost: \$2,000	Repair, patch, and level the sidewalk
Action : Bridge-Misc	StrTarget: 2 YEARS	approaches on both ends of the structure
Work By: BRIDGE CREW	DistTarget:	that have settled.
Status : PROPOSED	EA:	
 RecDate: 12/07/1999	 EstCost: \$1,000	 Remove unsound concrete in Girder 6 of
Action : Joints-Repair/Clean	StrTarget: 2 YEARS	Span 2 and Girder 11 of Span 1. Repair
Work By: BRIDGE CREW	DistTarget:	with a suitable material. The Action
Status : PROGRAMMED	EA: 1E4701	Item for this work recommendation states,
		"30 - Joints - Repair/Clean" and should
		be "10 - Super - Patch Spalls. This
		cannot be changed since the work is
		already programmed.
 RecDate: 12/01/1995	 EstCost: \$2,600	 Remove unsound concrete and patch the
Action : Super-Patch spalls	StrTarget: 2 YEARS	spalls in Span 2, Girder 11.
Work By: BRIDGE CREW	DistTarget:	
Status : PROGRAMMED	EA: 1E4701	
 RecDate: 02/10/1984	 EstCost: \$102,000	 F1-06 / F2-0 / F3-5 / Rail Type-Steel
Action : Railing-Upgrade	StrTarget: 2 YEARS	Baluster
Work By: STRAIN	DistTarget:	
Status : PROPOSED	EA:	

Inspected By : P. Piacentini

Registered Civil Engineer



**STRUCTURE INVENTORY AND APPRAISAL REPORT**

## \*\*\*\*\* IDENTIFICATION \*\*\*\*\*

(1) STATE NAME- CALIFORNIA 069  
 (8) STRUCTURE NUMBER 21 0018  
 (5) INVENTORY ROUTE (ON/UNDER)- ON 131000290  
 (2) HIGHWAY AGENCY DISTRICT 04  
 (3) COUNTY CODE 055 (4) PLACE CODE 09892  
 (6) FEATURE INTERSECTED- NAPA RIVER  
 (7) FACILITY CARRIED- STATE ROUTE 29  
 (9) LOCATION- 04-NAP-029-37.03-CSTG  
 (11) MILEPOINT/KILOMETERPOINT 37.03  
 (12) BASE HIGHWAY NETWORK- PART OF NET 1  
 (13) LRS INVENTORY ROUTE & SUBROUTE 000000002901  
 (16) LATITUDE 38 DEG 34 MIN 36 SEC  
 (17) LONGITUDE 122 DEG 34 MIN 42 SEC  
 (98) BORDER BRIDGE STATE CODE % SHARE %  
 (99) BORDER BRIDGE STRUCTURE NUMBER

## \*\*\*\*\* STRUCTURE TYPE AND MATERIAL \*\*\*\*\*

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE CONT  
 TYPE- TEE BEAM CODE 204  
 (44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA  
 TYPE- OTHER/NA CODE 000  
 (45) NUMBER OF SPANS IN MAIN UNIT 2  
 (46) NUMBER OF APPROACH SPANS 0  
 (107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1  
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:  
 A) TYPE OF WEARING SURFACE- BITUMINOUS CODE 6  
 B) TYPE OF MEMBRANE- NONE CODE 0  
 C) TYPE OF DECK PROTECTION- NONE CODE 0

## \*\*\*\*\* AGE AND SERVICE \*\*\*\*\*

(27) YEAR BUILT 1919  
 (106) YEAR RECONSTRUCTED 1952  
 (42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5  
 UNDER- WATERWAY 5  
 (28) LANES:ON STRUCTURE 04 UNDER STRUCTURE 00  
 (29) AVERAGE DAILY TRAFFIC 14200  
 (30) YEAR OF ADT 2000 (109) TRUCK ADT 4 %  
 (19) BYPASS, DETOUR LENGTH 3 KM

## \*\*\*\*\* GEOMETRIC DATA \*\*\*\*\*

(48) LENGTH OF MAXIMUM SPAN 8.5 M  
 (49) STRUCTURE LENGTH 18.9 M  
 (50) CURB OR SIDEWALK: LEFT 1.8 M RIGHT 1.8 M  
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 18.0 M  
 (52) DECK WIDTH OUT TO OUT 22.2 M  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 12.5 M  
 (33) BRIDGE MEDIAN- NO MEDIAN 0  
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO  
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 18.0 M  
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M  
 (54) MIN VERT UNDERCLEAR REF- NOT H/RR 0.00 M  
 (55) MIN LAT UNDERCLEAR RT REF- NOT H/RR 0.0 M  
 (56) MIN LAT UNDERCLEAR LT 0.0 M

## \*\*\*\*\* NAVIGATION DATA \*\*\*\*\*

(38) NAVIGATION CONTROL- NO CONTROL CODE 0  
 (111) PIER PROTECTION- CODE  
 (39) NAVIGATION VERTICAL CLEARANCE 0.0 M  
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M  
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

## \*\*\*\*\* SUFFICIENCY RATING \*\*\*\*\*

SUFFICIENCY RATING = 81.6

STATUS

HEALTH INDEX 97.2

PAINT CONDITION INDEX = N/A

## \*\*\*\*\* CLASSIFICATION \*\*\*\*\* CODE

(112) NBIS BRIDGE LENGTH- YES Y  
 (104) HIGHWAY SYSTEM- NOT ON NHS 0  
 (26) FUNCTIONAL CLASS- MINOR ARTERIAL RURAL 06  
 (100) DEFENSE HIGHWAY- NOT STRAHNET 0  
 (101) PARALLEL STRUCTURE- NONE EXISTS N  
 (102) DIRECTION OF TRAFFIC- 2 WAY 2  
 (103) TEMPORARY STRUCTURE-  
 (105) FED.LANDS HWY- NOT APPLICABLE 0  
 (110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0  
 (20) TOLL- ON FREE ROAD 3  
 (21) MAINTAIN- STATE HIGHWAY AGENCY 01  
 (22) OWNER- STATE HIGHWAY AGENCY 01  
 (37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

## \*\*\*\*\* CONDITION \*\*\*\*\* CODE

(58) DECK 7  
 (59) SUPERSTRUCTURE 5  
 (60) SUBSTRUCTURE 5  
 (61) CHANNEL & CHANNEL PROTECTION 5  
 (62) CULVERTS N

## \*\*\*\*\* LOAD RATING AND POSTING \*\*\*\*\* CODE

(31) DESIGN LOAD- M-13.5 OR H-15 2  
 (63) OPERATING RATING METHOD- LOAD FACTOR 1  
 (64) OPERATING RATING- 78.1  
 (65) INVENTORY RATING METHOD- LOAD FACTOR 1  
 (66) INVENTORY RATING- 47  
 (70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5  
 (41) STRUCTURE OPEN, POSTED OR CLOSED- A  
 DESCRIPTION- OPEN, NO RESTRICTION

## \*\*\*\*\* APPRAISAL \*\*\*\*\* CODE

(67) STRUCTURAL EVALUATION 5  
 (68) DECK GEOMETRY 5  
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N  
 (71) WATER ADEQUACY 5  
 (72) APPROACH ROADWAY ALIGNMENT 8  
 (36) TRAFFIC SAFETY FEATURES 0000  
 (113) SCOUR CRITICAL BRIDGES 3

## \*\*\*\*\* PROPOSED IMPROVEMENTS \*\*\*\*\*

(75) TYPE OF WORK- CODE  
 (76) LENGTH OF STRUCTURE IMPROVEMENT M  
 (94) BRIDGE IMPROVEMENT COST  
 (95) ROADWAY IMPROVEMENT COST  
 (96) TOTAL PROJECT COST  
 (97) YEAR OF IMPROVEMENT COST ESTIMATE  
 (114) FUTURE ADT 21639  
 (115) YEAR OF FUTURE ADT 2029

## \*\*\*\*\* INSPECTIONS \*\*\*\*\*

(90) INSPECTION DATE 04/09 (91) FREQUENCY 24 MO  
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE  
 A) FRACTURE CRIT DETAIL- NO MO A)  
 B) UNDERWATER INSP- NO MO B)  
 C) OTHER SPECIAL INSP- NO MO C)

BRIDGE SCOUR EVALUATION & PLAN OF ACTION				
<b>Br. No.</b> 21 0018	<b>Owner</b> Caltrans	<b>Location</b> 04-NAP-029- 37.03-CSTG	<b>Facility Carried</b> STATE ROUTE 29	<b>Name</b> NAPA RIVER
<b>Plan of Action completed by:</b> Scott Davis, Structure Maintenance & Investigations, Hydraulics Branch				<b>Revised:</b> 1/27/2009

1. SCOUR VULNERABILITY RATING
<p><b>Scour Evaluation Summary:</b> Scour critical due to potential undermining of the spread footing at Pier 2. There is hydraulic skew, and the 100-year storm event is expected to create pressure flow conditions (1979 FEMA study for the City of Calistoga shows the water surface at deck elevation). Calculations indicate that the combined effects of pressure scour and local pier scour could undermine the spread footing at Pier 2 by 1.4 ft. Depending on the length of footing affected, this may cause settlement, but is not expected to result in lateral instability of the pier.</p>
<p><b>Scour History:</b> The footing of the Abutment 1 right wing wall was partially undermined in 1953. A supplemental cutoff wall was placed in front of the original wall. In 1961, scour was noted on the Span 2 side of Pier 2. In 1999, a 2 ft deep residual scour hole was observed at the upstream end of Pier 2. In 2008 the minimum cover over the footing was determined to be 7".</p>
<p><b>Foundation Type</b>    <input checked="" type="checkbox"/> Spread footing    <input type="checkbox"/> Pile Extension    <input type="checkbox"/> Footing on Piles    <input type="checkbox"/> Unknown</p>
<p><b>Foundation Material</b> <input checked="" type="checkbox"/> Known: <u>Sand, gravel, clayey sand, clayey gravel</u>    <input type="checkbox"/> Unknown</p>
<p>Scour review done by: <u>Scott Davis, SM&amp;I Hydraulics</u>    Date: <u>10/24/2002</u></p>
<p>Structural assessment done by: <u>SM&amp;I Ratings Branch</u>    Date: <u>2/26/2004</u> Critical Elevation: <u>322.0 ft (bottom of Pier 2 footing)</u></p>
<p>Geotechnical assessment done by: <u>DES Geotechnical Support</u>    Date: <u>2002</u> Critical Elevation: <u>322.0 ft (bottom of Pier 2 footing)</u></p>

2. NBIS CODING INFORMATION	
Inspection Date	7/15/2008
Item 113    Scour	3
Item 60    Substructure	6
Item 61    Channel & Channel Protection	5
Item 71    Waterway Adequacy	5

### 3. COUNTERMEASURE RECOMMENDATION

A. Completed Countermeasures: none

#### B. Proposed Countermeasures:

☐ Countermeasures Not Required. (Please explain)

☒ Install Scour Countermeasures (See 4 and 5)

	Estimated Cost
<input type="checkbox"/> Riprap with monitoring program	\$
<input type="checkbox"/> Guide bank	\$
<input type="checkbox"/> Spurs / Bendway weirs / Barbs	\$
<input type="checkbox"/> Relief bridge / Culvert	\$
<input checked="" type="checkbox"/> Channel improvements	\$ 80,000
<input type="checkbox"/> Monitoring	\$
<input type="checkbox"/> Monitoring device	\$
<input type="checkbox"/> Check Dam	\$
<input type="checkbox"/> Substructure Modification	\$
<input checked="" type="checkbox"/> Bridge replacement	\$ 750,000
<input type="checkbox"/> Other:	\$

Two alternatives were proposed in 2002 - replacement or channel improvement. The channel improvement option consists of partially or fully lining the channel with concrete.

### 4. COUNTERMEASURE IMPLEMENTATION SCHEDULE

#### Countermeasure Implementation Project Type:

☒ Proposed Construction Project

Lead Agency: CALTRANS

☐ Maintenance Project

Advertised Date: n/a

Other scheduling information: No scour mitigation projects are programmed at this time.

## **5. MONITORING PLAN**

### **Structure Maintenance & Investigations - Area Bridge Maintenance Engineer:**

Inspect the foundations during routine biennial inspections, noting the depth and extent of scour at the nose of Pier 2. Report this information to the Hydraulics Branch.

### **Structure Maintenance & Investigations - Hydraulics Branch:**

Perform supplemental inspections annually and after high flows. Inspection items shall include observations of channel and substructure conditions, measurement of channel cross-section, measurement of depth and extent of scour and amount of footing exposure and/or undermining.

### **District Maintenance:**

During periods of intense rainfall in the vicinity of the bridge, or when otherwise alerted to possible high flow at the bridge, do the following:

1. Inspect the deck for settlement at the upstream end of Pier 2. Measure and record the distance to the water surface from top of sidewalk to water surface on the upstream side of the bridge.
2. If settlement is detected, close the bridge and contact Structure Maintenance & Investigations personnel in Sacramento (see Section 6, **Bridge Closure Plan**). Otherwise, return to the bridge at 12-hour intervals as long as the water surface is rising or remains above the **monitoring level**, which is **10.0 ft below the top of the sidewalk**. Note that at least two successive inspections will be needed to determine if flow is increasing or decreasing. Once it is determined that the water level is dropping and is below the monitoring level, monitoring may be stopped.
3. Record the high water mark for the storm event and, if possible, the time it occurs. Report this information to the Hydraulics Branch in the Office of Structure Maintenance & Investigations.

### **Notes:**

1. USGS real-time stream gage #11456000 is being monitored by the Office of Structure Maintenance & Investigations in Sacramento to detect potential high flow conditions at the bridge



## 6. BRIDGE CLOSURE PLAN

Bridge ADT: 4760

Built: 1919

% Trucks: 4

Bridge Length (ft): 62.0

### Closure Plan Summary

1. The bridge is to be closed in the event of scour-induced settlement.
2. The **Contact People** listed below are to be notified as soon as possible.
3. A constant watch is to be maintained during closure, and a detour set up as soon as possible.
4. The bridge is to be inspected by Structure Maintenance & Investigations prior to re-opening.

### Scour Monitoring Criteria for Consideration of Bridge Closure:

- ☐ Water surface elevation reaches \_\_\_\_\_ ☐ Overtopping road or structure  
☐ Scour Measurement Results / Monitoring Device ☐ Loss of Riprap  
☒ Observed amount of settlement: ANY ☐ Loss of Road Embankment  
☐ Debris Accumulation  
☒ Other: Any indication of bridge instability, including settlement, rotation or lateral displacement of superstructure or substructure elements.

### Person Responsible for Closure:

Nader Eshghipour, Deputy Director, District 4 Maintenance  
ofc 510-286-5893, cell 925-250-5587

### Contact People:

#### Structure Maintenance & Investigations, Sacramento

Pete Whitfield, Office Chief	office 916-227-8843, cell 916-798-7162
John Gillis, Senior Bridge Engineer	office 916-227-8774, cell 916-798-7182
Kevin Flora, Senior Bridge Engineer, Hydraulics	office 916-227-8036, cell 916-799-1423
Patrick Piacentini, Area Bridge Maintenance Engineer	office 916-227-8436, cell 916-719-0108
Yihwin Huang, Staff Engineer, Hydraulics	office 916-227-9472

#### District Maintenance

Don Rivers, Region Manager	office 707-762-6641, cell 707-695-5120
Trent Manning, Area Superintendent	office 707-762-6641, cell 707-695-5115
Ken Bauer, Bridge Maintenance Supervisor	office 707-428-2033, cell 707-689-3264
Nick Speridon, Roadway Maintenance Supervisor	office 707-942-6010, cell 707-299-0590

### Responsible for re-opening after inspection:

John Gillis, Senior Area Bridge Maintenance Engineer, Structure Maintenance & Investigations  
office 916-227-8774, cell 916-798-7182

Kevin Flora, Senior Hydraulics Engineer, Structure Maintenance & Investigations  
office 916-227-8036, cell 916-799-1423

## 7. DETOUR ROUTE

### Detour route description

Ahead on Route: From juncture of Route 29 and Route 128 in Calistoga, take Route 128 north 1.8 mi to Tubbs Lane, then take Tubbs lane 2.1 mi north to Route 29.

**Average ADT:** 4110

**Year:** 1997

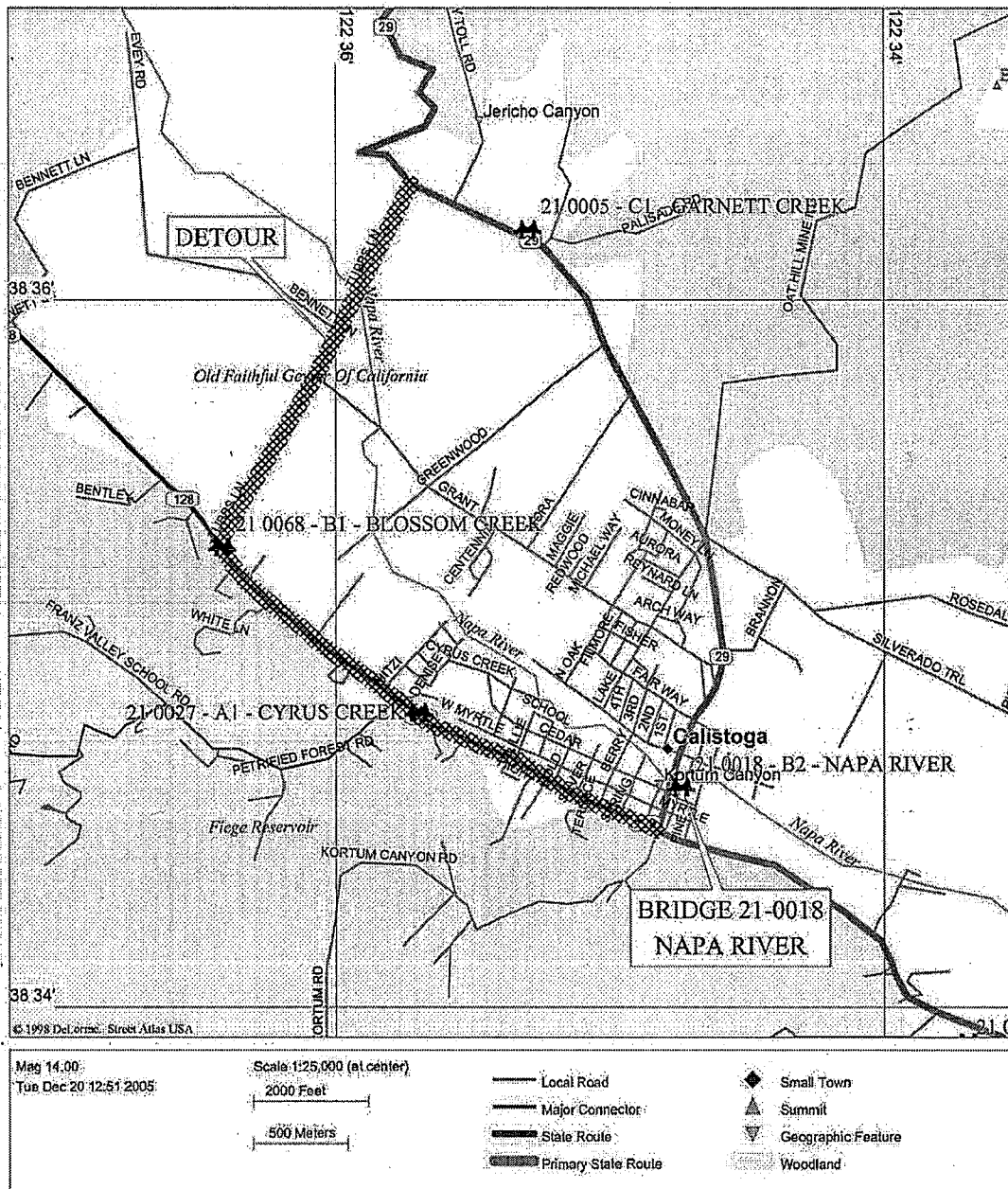
**% Trucks:** 10

**Length:** 3.9 mi

### Bridges on Detour Route:

Bridge Number	Waterway	Sufficiency Rating/ Load limitations	Scour 113 code
21-0027	Cyrus Creek	87.9 / 53.5 metric tons (operating)	8
21-0068	Blossom Creek	51.9 / 26.0 metric tons (operating)	5

## Detour: Bridge 21-0018 Napa River



## Attachment F

# TRANSPORTATION MANAGEMENT PLAN DATA SHEET

## (Preliminary TMP Elements and Costs)

Co/Rte/PM NAP/29/PM 37.03 EA 3G640K Project Engineer Emarnan Pongpairoj.  
 Project Limit In Napa County on Route 29 at P.M. 37.03  
 Project Description Replace Existing Napa River Bridge (#21-0018) with a 2-lane Bridge to  
Comply current standards

### 1) Public Information

- |   |              |
|---|--------------|
| <input type="checkbox"/> a. Brochures and Mailers   | \$           |
| <input checked="" type="checkbox"/> b. Press Release  |              |
| <input type="checkbox"/> c. Paid Advertising  | \$           |
| <input type="checkbox"/> d. Public Information Center/Kiosk   | \$           |
| <input type="checkbox"/> e. Public Meeting/Speakers Bureau  |              |
| <input type="checkbox"/> f. Telephone Hotline   |              |
| <input type="checkbox"/> g. Internet, E-mail  |              |
| <input type="checkbox"/> h. Notification to impacted groups<br>(i.e. bicycle users, pedestrians with disabilities, others...) |              |
| <input checked="" type="checkbox"/> i. Others _____   | \$ 10,000.00 |

### 2) Traveler Information Strategies

- |   |              |
|---|--------------|
| <input type="checkbox"/> a. Changeable Message Signs (Fixed)                      | \$           |
| <input checked="" type="checkbox"/> b. Changeable Message Signs (Portable)        | \$ 10,000.00 |
| <input type="checkbox"/> c. Ground Mounted Signs                                  | \$           |
| <input type="checkbox"/> d. Highway Advisory Radio                                | \$           |
| <input type="checkbox"/> e. Caltrans Highway Information Network (CHIN)           |              |
| <input type="checkbox"/> f. Detour maps (i.e. bicycle, vehicle, pedestrian...etc) |              |
| <input type="checkbox"/> g. Revised Transit Schedules/maps                        |              |
| <input type="checkbox"/> h. Bicycle community information                         |              |
| <input checked="" type="checkbox"/> i. Others _____                               | \$           |

### 3) Incident Management

- |   |              |
|---|--------------|
| <input checked="" type="checkbox"/> a. Construction Zone Enhanced Enforcement<br>Program (COZEEP) | \$ 20,000.00 |
| <input type="checkbox"/> b. Freeway Service Patrol  | \$           |
| <input type="checkbox"/> c. Traffic Management Team   |              |
| <input type="checkbox"/> d. Helicopter Surveillance   | \$           |
| <input type="checkbox"/> e. Traffic Surveillance Stations<br>(Loop Detector and CCTV)             | \$           |
| <input type="checkbox"/> f. Others _____  | \$           |

## TMP Data Sheet (cont.)

### 4) Construction Strategies

- |  |          |
|--|----------|
| <input checked="" type="checkbox"/> a. Lane Closure Chart          | \$ _____ |
| <input type="checkbox"/> b. Reversible Lanes                       | \$ _____ |
| <input type="checkbox"/> c. Total Facility Closure                 | \$ _____ |
| <input type="checkbox"/> d. Contra Flow                            | \$ _____ |
| <input type="checkbox"/> e. Truck Traffic Restrictions             | \$ _____ |
| <input type="checkbox"/> f. Reduced Speed Zone                     | \$ _____ |
| <input type="checkbox"/> g. Connector and Ramp Closures            | \$ _____ |
| <input type="checkbox"/> h. Incentive and Disincentive             | \$ _____ |
| <input type="checkbox"/> i. Moveable Barrier                       | \$ _____ |
| <input checked="" type="checkbox"/> j. Maintain Traffic (Flaggers) | \$ _____ |
| <input type="checkbox"/> k. Others _____                           | \$ _____ |

### 5) Demand Management

- |  |          |
|--|----------|
| <input type="checkbox"/> a. HOV Lanes/Ramps (New or Convert)       | \$ _____ |
| <input type="checkbox"/> b. Park and Ride Lots                     | \$ _____ |
| <input type="checkbox"/> c. Rideshare Incentives                   | \$ _____ |
| <input type="checkbox"/> d. Variable Work Hours                    | \$ _____ |
| <input type="checkbox"/> e. Telecommute                            | \$ _____ |
| <input type="checkbox"/> f. Ramp Metering (Temporary Installation) | \$ _____ |
| <input type="checkbox"/> g. Ramp Metering (Modify Existing)        | \$ _____ |
| <input type="checkbox"/> h. Others _____                           | \$ _____ |

### 6) Alternate Route Strategies

- |  |          |
|--|----------|
| <input type="checkbox"/> a. Add Capacity to Freeway Connector                    | \$ _____ |
| <input type="checkbox"/> b. Street Improvement (widening, traffic signal... etc) | \$ _____ |
| <input type="checkbox"/> c. Traffic Control Officers                             | \$ _____ |
| <input type="checkbox"/> d. Parking Restrictions                                 | \$ _____ |
| <input type="checkbox"/> e. Others _____   | \$ _____ |

### 7) Other Strategies

- |   |          |
|---|----------|
| <input type="checkbox"/> a. Application of New Technology | \$ _____ |
| <input type="checkbox"/> b. Others _____                  | \$ _____ |

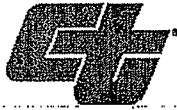
**TOTAL ESTIMATED COST OF TMP ELEMENTS =** **\$ 40,000.00**

\*Please note that any change in project scope, schedule, or cost will require resubmittal of TMP Data Sheet request.

PREPARED BY Louis Wong DATE 9/13/2011

APPROVAL RECOMMENDED BY Shein Lin DATE 9/13/2011

## Attachment G



## PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

### **Project Information**

District 04	County NAP	Route 29	PM 37.03	EA 3G640K
Project Title Bridge Replacement				
Project Manager Kelly Hirschberg			Phone # 510.286.4925	
Project Engineer Emarnan Pongpaioj			Phone # 510.622.5968	
Environmental Office Chief/Manager Melanie Brent			Phone # 510.286.5231	
PEAR Preparer Peter Frey			Phone # 510.622.8835	

### **Project Description**

#### **Purpose and Need**

The purpose of this project is to replace a bridge structure that has become structurally deficient and/or functionally obsolete. This bridge has been determined to be scour critical. Furthermore, this structure has a history of settlement. The need is to improve safety.

#### **Description of work**

The project is located in Napa County on Route 29, Bridge # 21-0018. The proposed two-span bridge is a voided reinforced concrete slab structure. The length and width would match the existing dimensions. The width accommodates one travel lane in each direction and wide outside shoulders for bus stops in each direction. The bridge rails are proposed to be Type 80SW on both sidewalks (minimum 5').

#### **Alternatives**

The build alternative includes the elements described above. The no build alternative leaves the existing facility unchanged.



### Anticipated Environmental Approval

CEQA		NEPA	
<b>Environmental Determination</b>			
Statutory Exemption	<input type="checkbox"/>		
Categorical Exemption	<input type="checkbox"/>	Categorical Exclusion	<input checked="" type="checkbox"/>
<b>Environmental Document</b>			
Initial Study or Focused Initial Study with proposed Negative Declaration (ND) or Mitigated ND	<input checked="" type="checkbox"/>	Routine Environmental Assessment with proposed Finding of No Significant Impact	<input type="checkbox"/>
		Complex Environmental Assessment with proposed Finding of No Significant Impact	<input type="checkbox"/>
Environmental Impact Report	<input type="checkbox"/>	Environmental Impact Statement	<input type="checkbox"/>
CEQA Lead Agency (if determined): The California Department of Transportation (Caltrans) is the lead CEQA Agency for the project. FHWA assigned, and Caltrans has assumed, all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA.			
Estimated length of time (months) to obtain environmental approval:			18
Estimated person hours to complete identified tasks:			2920

### PEAR Technical Summaries

**Community Impacts:** The proposed project will not result in adverse impacts on population growth/sprawl, local economy, municipal or community services, utility services, community character, or existing or proposed land use. There are no Title VI issues, adverse impacts to minority and low-income populations expected.

**Visual/Aesthetics:** The proposed project is not expected to adversely affect any scenic or visual resources.

**Cultural Resources:** Bridges in Napa County carry a premium: therefore, despite the fact that the bridge has been determined category 5, public interest warrants more in depth public involvement. Additionally, the project is situated within a historical district that may need to be evaluated.

In terms of archaeology, the proposed project is situated in an area is highly sensitive for both historical archaeology and prehistory archaeology. Therefore, an ASR and Extended Phase 1, as well as native American consultation are required.

**Water Quality and Storm Water Runoff:** This project must comply with the Department Statewide National Pollutant Discharge Elimination System (NPDES) Permit (Order No.: 99-06-DWQ) and the Construction General Permit (Order No.: 2009-0009-DWQ), both issued by the State Water Resources Control Board (SWRCB). Under the auspices of the SWRCB, the San Francisco Bay Regional Water Quality Control Board (Region 2) has authority to enforce NPDES and Construction General Permit requirements. To comply with these permits, the Department shall consider and incorporate temporary and permanent Best Management Practices (BMPs) using Best Available Technology (BAT) to the Maximum Extent Practicable (MEP), in order to minimize, or prevent, any potential increased impact to existing water quality. Per the Construction General Permit, development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) is required; this shall be prepared per Department Standard Special Provision (SSP) 07-345. The SWPPP is developed by the Contractor, and approved by the Department, prior to commencement of construction. In addition to the general permits mentioned above, it should be anticipated that a 401 Certification, issued by Region 2, will be required.

**Hazardous Waste/Materials:** The proposed project will require testing of the structure for asbestos. The testing will take place during the design phase.

**Air Quality:** The Project is exempt from the requirement of air quality conformity determination. An air quality study is not required.

**Noise and Vibration:** The Project has no traffic noise impacts. A noise study will not be required.

**Biological Environment:**

*Site Description/Habitat:*

The bridge is located on SR 29 in Napa County. The surrounding area is highly urban. Areas within the Caltrans right-of-way consist of concrete, native and non-native vegetation. A site visit will be required to further determine specific vegetation and habitat types. The bridge structure may provide habitat for numerous species of birds and bats.

*Flora/Fauna:*

The U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game's CNDDB list numerous threatened/endangered species that have the potential to occur in the Calistoga U.S. Geological Survey Quadrangle, which covers the project area. Included in this list are:

*Fish*

delta smelt (*Hypomesus transpacificus*)  
coho salmon (*Oncorhynchus kisutch*)  
Central California Coastal steelhead (*Oncorhynchus mykiss*)

Central Valley steelhead (*Oncorhynchus mykiss*)  
California coastal Chinook salmon (*Oncorhynchus tshawytscha*)  
Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*)  
Winter-run Chinook salmon (*Oncorhynchus tshawytscha*)

Amphibians

California red-legged frog (*Rana draytonii*)

Birds

Northern spotted owl (*Strix occidentalis caurina*)

Plants

Clara Hunt's milk-vetch (*Astragalus clarianus*)  
Loch Lomond coyote-thistle (*Eryngium constancei*)  
Calistoga allocarya (*Plagiobothrys strictus*)  
Napa bluegrass (*Poa napensis*)

The Federal Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations part 10, and California Fish and Game Code Sections 3503, 3513, and 3800 protect migratory birds, occupied nests and their eggs. Birds nest in a variety of places which include trees, shrubs, bridges, and other man-made structures on the ground. Numerous species of bats also use bridges for roosting habitat. Many of these bats are Species of Special Concern. A site assessment will need to be conducted to determine if this structure or the surrounding habitat are being used by birds and bats as roosting habitat.

Waters/Wetlands:

Wetlands and waters are expected to occur in the project vicinity after initial reviews of aerial imagery. This will need to be confirmed with a site visit and wetland delineation. Since the project is to replace a bridge it is likely that there will be impacts to waters and wetlands due to pile driving and construction access. If any waters or wetlands occur in the project area they should be avoided and designated as Environmentally Sensitive Areas (ESA).

Permits:

It is likely that a 1602 Streambed Alteration Agreement from the California Department of Fish and Game, 404 Nation-wide permit from the Army Corps of Engineers may be required. Additionally, this project may require formal consultation with the USFWS and the National Oceanic and Atmospheric Administration (NOAA) regarding threatened and endangered species likely present within the footprint of this project, pile driving associated with construction of the new bridge, and fish passage barriers that may be associated with this project. A site assessment and a complete project description, and detailed plans showing staging and access will be needed to confirm this.

*Schedule:*

If threatened or endangered species or their habitat is present within the footprint of the replacement project there may be work windows during construction of the replacement project. If construction work is scheduled during the bird nesting season (February 1<sup>st</sup>-August 31<sup>st</sup>) then a pre-construction survey for nesting birds must occur. If birds are present at the bridge structure and work is scheduled during the bird nesting season a bird control plan must be completed prior to the start of construction.

*Mitigation:*

A species/habitat assessment and wetland delineation must be completed before a conclusion can be made in regards to mitigation.

Please allow the Office of Biological Sciences and Permits the opportunity to review project plans as they progress. All design changes will require reassessment of biological resources and may delay the project. Please forward all plans to the Office of Biological Sciences and Permits as soon as possible. If you should have any questions, or require clarification please contact Abdullah Arakozie at (510) 719-7493.

**Context Sensitive Solutions:** Context sensitive solutions meet transportation goals in harmony with community goals and natural environments. They require careful, imaginative, and early planning and continuous community involvement. There were no early planning activities and community involvement efforts that were undertaken during this initial phase of project development. The project, by its nature is not expected to conflict in harmony with community goals and the natural environment.

***Disclaimer***

This Preliminary Environmental Analysis Report (PEAR) provides information to support programming of the proposed project. It is not an environmental determination or document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in the Project Study Report (PSR). The estimates and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or alternatives, or in environmental laws, regulations, or guidelines.

36640K

**Review and Approval**

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements. Also, if the project is scoped as a routine EA, complex EA, or EIS, I verify that the HQ DEA Coordinator has concurred in the Class of Action.

Valerie Shearer

Environmental Branch Chief

Date: 9/16/2011

Kelly Hirschky

Project Manager

Date: 9/16/2011

**REQUIRED ATTACHMENTS:**

**Attachment A: Environmental Technical Reports or Studies Required**

**Attachment B: PEAR Mitigation and Compliance Cost Estimate**

## Attachment A: Environmental Technical Reports or Studies Required

	Study or Report	Document Text Only	Not Anticipated
<b>Community Impact Study</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Farmland</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Section 4(f) Evaluation</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Visual Resources</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Water Quality</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Floodplain Evaluation</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Noise Study</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Air Quality Study</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Paleontology</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Wild and Scenic River Consistency</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Cumulative Impacts</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Growth Inducing/Indirect Impacts</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Cultural</b>			
Archaeological Survey Report (ASR)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Historic Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Evaluation Report (HRER)			
Historic Property Survey Report (HPSR)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Historical Resource Compliance Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SHPO / PRC 5024.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Native American Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Finding of Effect:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Extended Phase 1:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data Recovery Plan:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Memorandum of Agreement*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(*if Federal Permit is required)			
<b>Hazardous Waste</b>			
ISA (Additional)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PSI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Biological</b>			
Endangered Species (Federal)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Endangered Species (State)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Species of Concern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(CNPS, USFS, BLM, S, F)			
Biological Opinion	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(USFWS, NMFS, State)			
Fish Passage Barriers Assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Invasive Species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Natural Environment Study	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NEPA 404 Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Permits**

401 Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
404 Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1602 Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
City/County Coastal Permit Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State Coastal Permit Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NPDES Permit (402) Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US Coast Guard (Section 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Attachement B: PEAR Mitigation and Compliance Cost Estimate\*

District 04	County NAP	Route 29	PM 37.03	EA 3G640K
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Description of Work	Bridge Deck Replacement
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Project Manager	Patrick Pang	Date	
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Prepared by	Peter Frey	Date	
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	Mitigation			Compliance
	Project Feature <sup>1</sup>	Enviro. Obligation <sup>2</sup>	Statutory Require. <sup>3</sup>	Permit & Agreement <sup>4</sup>
Fish & Game 1602 Agreement				
Coastal Development Permit				
State Lands Agreement				
NPDES Permit				
COE 404 Permit- Nationwide				
COE 404 Permit- Individual				
COE Section 10 Permit				
COE Section 9 Permit				
Other:				
Noise attenuation				
Special landscaping				
Archaeological				
Biological				
Wetland/riparian				
Historical				
Scenic resources				
Asbestos Testing/Mitigation				
Other:				
<b>TOTAL (Enter zeros if no cost)</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>

Costs are to include all costs to complete the commitment including: 1) capital outlay and staff support; 2) cost of right-of-way or easements; 3) long-term monitoring and reporting; and 4) any follow-up maintenance.

<sup>1</sup> Mitigation that Caltrans would normally do if not required by a permit or environmental agreement.

<sup>2</sup> Mitigation that Caltrans would not normally do but is required by conditions of a permit or environmental agreement.

<sup>3</sup> Mitigation that Caltrans would not normally do and is not required by a permit or Enviro. Agreement, but is required by a law.

<sup>4</sup> Non-mitigation Caltrans would not normally do but is required by conditions of a permit or agreement.

\*Prepare a separate form for each practicable alternative in the PSR.



## Attachment H

# APPENDIX E

## Long Form - Storm Water Data Report



Dist-County-Route: 04-NAPA-029

Post Mile Limits: 37.03

Project Type: Bridge Replacement

Project ID (or EA): (3G640K)

Program Identification: 261

Phase: ☒ PID  
☐ PA/ED  
☐ PS&E

Regional Water Quality Control Board(s): San Francisco Bay RWQCB (R-2)

Is the Project required to consider Treatment BMPs? Yes ☒ No ☐  
 If yes, can Treatment BMPs be incorporated into the project? Yes ☐ No ☒

If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to the projects RTL date.

List RTL Date: 11/1/2015

Total Disturbed Soil Area: 0.2 ac Risk Level: 2

Estimated: Construction Start Date: 5/1/2016 Construction Completion Date: 5/1/2018

Notification of Construction (NOC) Date to be submitted: TBD in PS&E Phase

Erosivity Waiver Yes ☐ No ☒ Date: \_\_\_\_\_  
 Notification of ADL reuse (If Yes, provide date) Yes ☐ No ☐ Date: TBD  
 Separate Dewatering Permit (If yes, permit number) Yes ☐ No ☐ Permit # TBD

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

*for* Emarnan Pongpairoj, Registered Project Engineer/Landscape Architect Date 9/15/11

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

Kelly Hirschberg Date 9/15/2011  
 Kelly Hirschberg, Project Manager

Robert D. Braga Date 9/15/2011  
 Bob Braga, Designated Maintenance Representative

*for* Jennifer Egawa (Jennifer Egawa) Date 9/15/2011  
 David Yam, Designated Landscape Architect Representative

Norman Gonsalves Date 09/15/2011  
 Norman Gonsalves, Regional Design SW Coordinator or Designee

[Stamp Required for PS&E only)



Caltrans Storm Water Quality Handbooks  
 Project Planning and Design Guide  
 July 2010